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THE RESULTS OF PHYSICAL TESTS OF ROAD-BUILDING ROCK.

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INTRODUCTION.

The purpose of this bulletin is to furnish highway engineers with the results of physical tests of road-building rock made in the laboratories of the United States Office of Public Roads and Rural Engineering to January 1, 1916. It is proposed to revise this bulletin from time to time, so that additional data secured by the office may become promptly available. Detailed descriptions of the methods of determining the physical properties of road-building rocks have been given in a recent publication by Jackson.¹ Interpretation of the results of these tests has, however, been reserved for publication with the tabulated data here given. It should be noted that Bulletins Nos. 347 and 370 therefore constitute a complete revision of Office of Public Roads Bulletin No. 44, by Albert T. Goldbeck and Frank H. Jackson, Jr., which was published in 1912. As a matter of interest it may be stated that since January 1, 1912, approximately 1,350 additional samples have been classified and tested, raising the total number from the United States and Canada to about 3,650.

¹ United States Department of Agriculture Bulletin No. 347.

AGENCIES CAUSING ROAD DETERIORATION.

Roads may deteriorate from both external and internal causes. The destructive agencies may be classified as mechanical, chemical, and physical, but in some respects it is more convenient to consider deterioration as being due to the effect of (1) traffic, (2) climatic conditions, and (3) faulty construction. The first two are external agencies and the latter is internal.

Traffic.—Traffic divides itself into two classes, (a) horse-drawn vehicles and (b) self-propelled or motor-driven vehicles. In the former the impact of horses' feet tends to disturb the position of individual fragments of rock in the wearing course and also to fracture the rock. At the same time wheels, especially steel-tired wheels, not only exert an abrasive action which grinds away the rock surfaces, but tend to crush the fragments of rock in proportion to the load per unit width of tire.

Automobile traffic exerts a severe shearing action upon the road surface which tends to loosen the individual fragments and, ultimately, to remove them from the road. Where chains or armored tires are used, considerable abrasion may also result, especially under those conditions which favor slipping or skidding.

Climatic agencies.—So far as the rock itself is concerned, climatic or weather conditions are not important destructive agencies. While it is true that rain and surface waters gradually dissolve or react with certain rock-forming minerals, the action is so slow as to be practically negligible as a source of deterioration during the life of a road. Frost may cause some deterioration in the more porous types of rock, but both rain and frost are more destructive to the road structure than to the rock of which it is built. Wind also is a negligible factor so far as the rock is concerned.

Faulty construction.—Faulty construction may result in rapid deterioration of the road proper, due to a number of causes, such as poor drainage, lack of proper consolidation, the use of the wrong size or wrong grading of broken stone, etc. Destruction or disintegration of the fragments of rock may also be hastened by these errors in construction.

FACTORS INFLUENCING THE SELECTION OF ROCK FOR ROAD BUILDING.

In accordance with the preceding discussion it is evident that from the standpoint of destructive agencies traffic conditions are the most important factors to be considered in the selection of rock for road building. Availability as well as relative cost are also important factors in so far as ultimate economy is concerned, but need not be considered in this bulletin. In addition, the type of road to be

constructed is a most important consideration, and in general the selection of rock should be based upon the character and volume of traffic as related to the type of road in which it is to be used.

The more common types of road in which stone is used are:

1. Water-bound broken-stone roads, as macadam, maintained as such.
2. Water-bound macadam roads maintained with dust palliatives.
3. Water-bound macadam roads with bituminous carpet.
4. Bituminous broken-stone roads with a seal coat of bituminous material constructed according to the penetration method.
5. Bituminous concrete roads with a seal coat of bituminous material.
6. Bituminous concrete roads without a seal coat of bituminous material.
7. Portland cement concrete roads with a coarse aggregate of broken stone.
8. Stone-block pavements.

The destructive effect of traffic, both with respect to character and volume, varies to a considerable extent for the different types of road.

PHYSICAL PROPERTIES OF ROAD-BUILDING ROCK.

The success or failure of a rock for road building depends largely upon the extent to which it will resist the destructive influences of traffic. The three most important physical properties are hardness, toughness, and binding power. Hardness is the resistance which the rock offers to the displacement of its surface particles by abrasion; toughness is the resistance which it offers to fracture under impact; and binding power is the ability which the dust from the rock possesses, or develops by contact with water, of binding the large rock fragments together. In order to approximate as closely as possible in the laboratory the destructive effects produced by the various agencies which have been mentioned, certain physical tests have been developed. Brief descriptions of these tests are as follows:

HARDNESS TEST.

Hardness is determined by subjecting a cylindrical rock core 25 mm. in diameter, drilled from the specimen to be examined, to the abrasive action of quartz sand fed upon a revolving steel disk. The end of the specimen is worn away in inverse ratio to its hardness and the amount of loss is expressed in the form of a coefficient as follows:

Coefficient of hardness = $20 - \frac{1}{3} w$, where w equals the loss in weight after 1,000 revolutions of the disk.

TOUGHNESS TEST.

Toughness is determined by subjecting a cylindrical test specimen 25 by 25 millimeters (1 by 1 inch) in size to the impact produced by the fall of a 2-kilogram (4.4-pound) hammer upon a steel plunger whose lower end is spherical and rests upon the test piece. The energy of the blow delivered is increased by increasing the height of fall of the hammer 1 centimeter (0.39 inch) after each blow. The height of blow in centimeters at failure of the specimen is called the toughness.

DEVAL ABRASION TEST.

A test devised by the French for measuring the combined action of abrasion and impact is as follows: Five kilograms (11 pounds) of freshly broken rock between 2 and 2½ inches in size is tested in a special form of cylinder so mounted on a frame that the axis of rotation of the cylinder is inclined at an angle of 30° with the axis of the cylinder itself. The fragments of rock forming the charge are thus thrown from end to end twice during each revolution, causing them to strike and rub against each other and the sides of the cylinder. After 10,000 revolutions the resulting material is screened through a $\frac{1}{16}$ -inch sieve and the weight of the material passing is used to calculate the per cent of wear. The French coefficient of wear is calculated from the per cent of wear as follows:

$$\text{French coefficient of wear} = \frac{40}{\text{Per cent wear}}.$$

CEMENTING-VALUE TEST.

To determine the binding power, or cementing value, as it is usually called, 500 grams (1.1 pounds) of the material to be tested is crushed to pea size and ground with water in a ball mill until it has the consistency of a stiff dough. It is then molded into cylindrical briquettes 25 by 25 millimeters (1 by 1 inch) in size, which, after thorough drying, are tested to destruction in a special form of impact machine. A 1-kilogram (2.2-pound) hammer falls through a constant height of 1 centimeter (0.39 inch) upon an intervening plunger, which in turn rests upon the test piece. By means of a suitable arrangement a graphic record of the number of blows required to destroy the specimen is obtained. The number of blows producing failure is called the cementing value of the material.

SPECIFIC GRAVITY—WEIGHT PER CUBIC FOOT—WATER ABSORPTION.

The specific gravity, weight per cubic foot, and the water absorption in pounds per cubic foot are obtained on samples of rock which are tested to determine their road-building qualities. The weight

DE
(4)



(5)



(5)



VI
(5)



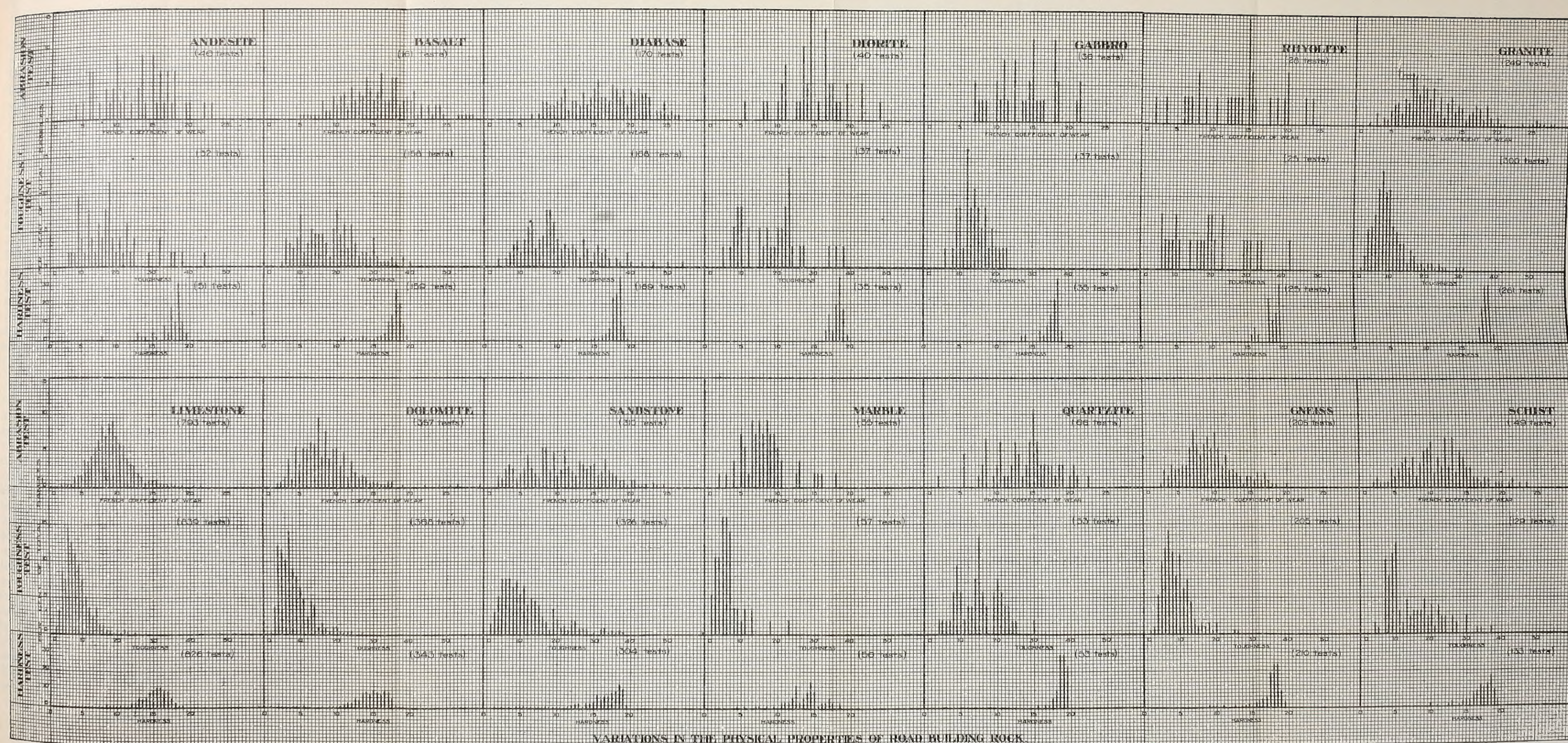
(5)



(5)



ITIES



VARIATIONS IN THE PHYSICAL PROPERTIES OF ROAD BUILDING ROCK.

per cubic foot is calculated from the specific gravity of the material obtained on a 10-gram sample by the usual displacement method. The gain in weight of this fragment after four days' continuous immersion in water is used to calculate the water absorption in pounds per cubic foot of the solid rock.

VARIATIONS IN RESULTS OF TESTS.

Because of the fact that the various rock families, when subjected to the tests outlined above, give results which are more or less distinctive of a group or type, these results can best be discussed in many cases collectively. There are 14 families of rock which are more or less commonly used in macadam-road construction. The variations which have been found to exist in the three principal tests for each of these are shown in graphic form in the accompanying chart. The values of the tests are arranged as abscissæ, with the zero points to the left and the values numerically increasing toward the right. The ordinates or vertical lines represent the percentages of the total number of samples having values corresponding to the abscissæ on which they are plotted. The figures in parentheses in the upper right-hand corner of each block represent the total number of determinations from which these percentages were calculated.

TRAP-ROCK GROUP.

The first six rock families, *Andesite*, *Basalt*, *Diabase*, *Diorite*, *Gabbro*, and *Rhyolite*, comprise the well-known group of road-building rocks commonly known as "trap." They are all of igneous origin, but are denser and finer grained than the granites, possessing as a rule a peculiar interlocking crystalline structure which imparts to them their distinguishing characteristic—high toughness. Thus, by referring to the chart, it will be noted that the average toughness of all the traps, with the exception of gabbro, which runs somewhat lower, is about 18. This is a considerably higher average than that shown by any of the other types or groups. The same relationship holds true in the abrasion test, the average French coefficient of wear running from about 13 to 15. Comparatively slight variations in hardness are noted for any family or for the group as a whole, the average hardness for which is about 18. The binding power of the traps, as determined by test, varies through wide limits, depending largely on the degree of weathering they have undergone, as shown by Lord.¹ The specific gravity of this group averages about 2.9, giving an average weight per cubic foot of 180 pounds. Individual samples are seldom less than 2.7 nor more than 3.2 specific gravity. Water absorption may vary from a few hundredths of 1 per cent to over 7 per cent.

¹ United States Department of Agriculture Bulletin No. 348.

GRANITES.

Granite, the typical rather coarse-grained igneous rock, is characterized by low toughness and high hardness. The average value for the former, as will be seen from the chart, is about 8, while that for the latter runs as high as for the trap group, about 18.5. The abrasion test develops an average French coefficient of wear of about 11, somewhat lower than for the trap-rock group. Cementing values made on granites run low, as has been demonstrated by experience, the only exceptions being very highly weathered material which usually shows low toughness and resistance to wear. The specific gravity of the granites averages close to 2.7 and is seldom less than 2.6 or more than 2.8. The weight per cubic foot, therefore, averages 168 pounds, and may ordinarily vary from 163 to 175 pounds. Water absorption has been found to run from about 0.04 to 3 per cent.

LIMESTONES AND DOLOMITES.

The limestones and dolomites, or magnesium limestones, are undoubtedly the most widely used road-building rock. It will be seen from the chart that they run much lower in hardness, toughness, and resistance to wear than do the traps or granites. The average French coefficient of wear is about 8, toughness 7, and hardness 15. The cementing values are usually good, about 75 per cent of all samples tested running over 25. The specific gravity of the limestones and dolomites averages close to 2.7, about that of the granites, and is seldom less than 2.6 or more than 2.85. In general, the weight per cubic foot will run from 160 to 178 pounds, with an average of about 168 pounds for the limestones and 170 pounds for the dolomite. Absorption may vary from a few hundredths of 1 per cent to over 13 per cent.

SANDSTONES.

The sandstones are characterized by wide variations in the results of all tests. In fact, the highest and lowest values obtained for all samples tested have, with one exception, been upon sandstone. The average French coefficient of wear is about 12, average toughness about 10, and average hardness about 16. The cementing value of sandstones varies widely, depending upon their composition. Thus certain varieties of feldspathic sandstone somewhat resembling trap rock in appearance almost invariably show high binding value in the laboratory. Their specific gravity also varies between wide limits, but usually lies between 2.4 and 2.8, with an average of 2.62. The weight per cubic foot therefore varies from 150 to 175 pounds and averages 164 pounds. Absorption runs from a few hundredths of 1 per cent to about 2 per cent.

MARBLE AND QUARTZITE.

Marble and quartzite are the two families of nonfoliated metamorphic rocks corresponding to limestone and sandstone, respectively. While in some respects it is convenient to consider marble with the limestone and dolomite group, it will be seen from the chart that the average toughness of marble, about 5, is lower, and that the average hardness, which is less than 14, is also somewhat lower. Marbles usually show good cementing value tests with about the same range as the limestones and dolomites. For those samples tested, the specific gravity ordinarily falls between 2.7 and 2.9 and the weight per cubic foot averages 173 pounds, which is somewhat higher than the average for either limestone or dolomite. As would therefore be expected, the maximum absorption is less, being under 2.5 per cent.

Quartzites show an average toughness of 15, as compared with 10 for the sandstones. The coefficient of hardness is also higher and for the samples tested shows a much smaller range of values than for the sandstones. The quartzites invariably show a low cementing value. Their specific gravity from tests made usually lies between 2.6 and 2.8 and their average weight per cubic foot is about 167 pounds. Their water absorption runs from a few hundredths of 1 per cent to nearly 3 per cent.

GNEISS AND SCHIST.

Both gneiss and schist belong to the foliated metamorphic type of rocks. The former is in reality a metamorphosed granite and therefore shows physical properties similar to the granites. The average French coefficient of wear for the gneiss samples is about 9, being somewhat lower than for the granites, while their average hardness and toughness is about the same. Their specific gravity, weight per cubic foot, and absorption are approximately the same as for granite.

The schists show an average French coefficient of wear of about 12. Their average hardness is about 17.5 and their toughness averages 11, the latter being higher than for gneiss. It should be noted, however, that the toughness test for both gneiss and schist is made perpendicular to the plane of foliation. If taken horizontal to the plane of foliation much lower results would be obtained, as failure would then occur along these natural lines of cleavage. The specific gravity of schists usually lies between 2.65 and 2.90 and the average weight per cubic foot is about 181 pounds. Water absorption is seldom over 2 per cent for this family.

With the exception of the highly altered varieties, both gneisses and schists show a rather low cementing value.

CHERT.

Chert is a very hard material, but frequently shows a low resistance to wear, owing to its tendency to fracture along lines which have developed as shrinkage cracks in the rock structure. For this reason it is extremely difficult to test for toughness. The cementing value of pure chert is usually low, but some highly weathered deposits develop in service good cementing value, especially if a high-binding clay is associated with it. Comparatively few samples which have been submitted for examination have been found suitable for all tests. Of those examined, however, the French coefficient of wear has usually been found to lie between 2 and 8, with an average of 5; toughness between 7 and 26, with an average of 16; and the hardness coefficient between 19 and 20. Specific gravity usually lies between 2.4 and 2.65 and the average weight per cubic foot is about 160 pounds. Water absorption may run from a few tenths of 1 per cent to over 8 per cent.

SHALE AND SLATE.

Shales and slates are highly laminated rocks that tend to break into flat plates not suitable for road-building purposes. They are seldom used in road construction, except perhaps as a filling for sub-foundations. They vary greatly in nearly all of their physical properties.

RARE ROAD-BUILDING ROCKS.

A comparatively few samples of a number of families of rocks which are occasionally used in road building have been examined in the laboratories of the United States Office of Public Roads and Rural Engineering. They need not be considered in detail, but the usual ranges as well as the averages of results of the more important physical tests of these rocks are given in Table I.

TABLE I.—*The rare road-building rocks.*

Number of samples.	Name.	French coefficient of wear.		Toughness.		Hardness.	
		Ordinary range.	Average.	Ordinary range.	Average.	Ordinary range.	Average.
20	Amphibolite.....	11.3-26.7	16.7	12-40	19	16.6-19.0	17.5
10	Eclogite.....	12.7-22.7	16.1	14-28	26	18.4-19.3	18.5
12	Epidosite.....	10.0-18.7	13.0	10-23	16	17.6-19.5	18.0
11	Felsite.....	11.9-21.3	15.8		16		18.7
6	Peridotite.....	7.6-13.2	10.3	9-12	10	13.3-16.6	15.0
8	Serpentine.....	2.6-14.2	10.1	11-21	14	18.3-18.6	18.4
5	Trachyte.....	11.5-23.5	16.2	21-34	22	17.7-19.1	18.1
19	Syenite.....	7.0-18.7	13.1	8-22	14	17.3-19.2	18.1

SLAGS.

Many slag varieties resemble in certain outward respects the common road-building rocks. However, in general, they are more porous and glassy, and vary so greatly in physical properties that with reference to their physical characteristics from the standpoint of road construction they can not well be considered as a single class with definite limits or general average numerical values.

INTERPRETATIONS OF RESULTS OF PHYSICAL TESTS.

The results of physical tests are only of value in predetermining the suitability of a rock for a given type of road under given conditions when the behavior of other rocks, having the same general physical characteristics, is known. Much investigation is still necessary to accurately correlate laboratory tests with service results, but in this connection certain facts have been determined from experience, which may be briefly discussed under the different types of roads.

As the amount of traffic to which a road is or will be subjected is a most important consideration, and as the terms light, moderate, and heavy are commonly used in describing the amount of traffic, such terms should be defined. For the purpose of comparison it has been assumed that traffic of less than 100 vehicles per day is light, between 100 and 250 moderate, and over 250 heavy.

WATER-BOUND MACADAM ROADS.

The ideal rock for the construction of a water-bound macadam road resists the wear of traffic to which it is subjected to just that extent which will supply a sufficient amount of cementitious rock dust to bind or hold the larger fragments in place. It is generally admitted that the ordinary macadam road is not well suited to any considerable amount of automobile traffic, because such traffic rapidly removes the binder without producing fresh material to take its place.

Cementing value is a necessary quality for rocks used in macadam road construction. As determined by test, cementing values below 25 are called low; from 26 to 75, average, and above 75, high. In general, the cementing value should run above 25. For rocks which show a low French coefficient of wear, however, a relatively high cementing value is more necessary than for those which have a high French coefficient. Interpretation of results of the cementing value test is subject to a number of influencing considerations. For instance, it has been found that certain feldspathic varieties of sandstone give excellent results in this test, while experience has shown that they do not bind well when used in the wearing course of macadam roads. In the case also of certain varieties of the trap

group low results are frequently shown by laboratory tests for rocks which bind quite satisfactorily upon the road, provided traffic is sufficiently heavy to supply the requisite amount of fine material. Certain granites, gneisses, and schists which are not suitable for use as binding material give good results in this test. In such cases it is usually found that the highly altered nature of the material reduces its toughness and resistance to wear to such an extent as to condemn it for use.

Experience has shown that in general the following table of limiting values for the French coefficient of wear, toughness, and hardness may be used in determining the suitability of a rock for the construction of the wearing course of a macadam road:

TABLE II.—*Limiting values of physical tests of rock for water-bound macadam road construction.*

Character of traffic.	Limits of tests.		
	French coefficient of wear.	Toughness.	Hardness.
Light.....	5-8=(5-8 per cent wear).....	5-9	10-17
Moderate.....	8-15=(2.7-5 per cent wear).....	10-18	Over 14
Heavy.....	Over 15=(less than 2.7 per cent wear).....	Over 18	Over 17

With relation to the limitations for hardness it may be noted that as a result of comparing hardness and toughness tests of some 3,000 samples, the authors¹ have shown that when any given value for toughness falls within certain limits which define the suitability of the material for macadam road construction under given traffic conditions, the corresponding value for hardness will fall within similar limits for hardness. In this connection it will be seen, in Table II, that a maximum limit for hardness is only given in the case of light traffic. It has been found that the great majority of samples having a French coefficient of wear of from 5 to 8 and a hardness of over 17 are granites, quartzites, and hard sandstones, which are unsuited for use in the wearing course of water-bound macadam roads due to their lack of binding power.

BITUMINOUS ROADS.

For broken-stone roads which are maintained with dust palliatives, the same limits for French coefficient of wear and toughness should hold as for ordinary macadam roads.

In bituminous work observations indicate that in some cases it is advantageous to use a rock of relatively high absorption rather than one with low absorptive qualities, owing to a better adhesion of the bituminous material by a partial surface impregnation of the rock.

¹ Relation Between the Properties of Hardness and Toughness of Road-Building Rock, Journal of Agricultural Research, Vol. V, No. 19, D-3.

While the binding or cementing value of a rock is a most important consideration from the standpoint of ordinary macadam construction, the same is not true of broken-stone roads which are carpeted or constructed with an adhesive bituminous material. The French coefficient of wear is also of relatively less importance, owing to the fact that the fine mineral particles produced by the abrasion of traffic combine, or should combine, with the bituminous material to form a mastic which is held in place and protects the underlying rock from abrasion so long as by proper maintenance it is kept intact. The toughness of the rock is of more importance, as the shock of impact is to a considerable extent transmitted through the seal coat and may cause the underlying fragments to shatter. It would, therefore, seem that the minimum toughness of a rock for use in the construction of a bituminous broken-stone road or a broken-stone road with a bituminous-mat surface should, for light traffic, be no less than for ordinary macadam subjected to the same class of traffic. For moderate and heavy traffic, however, the same minimum toughness should prove sufficient, owing to the cushioning effect of the bituminous matrix. No maximum limit of toughness need be considered for any traffic.

In the case of bituminous concrete roads, where the broken stone and bituminous material are mixed prior to laying and consolidation, it generally appears advisable to set a minimum toughness of 6 or 7 for light-traffic roads, instead of 5, in order to insure that the fragments of rock which have been coated with bitumen shall not be fractured under the roller during consolidation; and 12 or 13 for moderate and heavy traffic, instead of 10 and 19, as in the case of water-bound macadam roads.

Bearing in mind the fact that availability, cost, and various local conditions may often modify the selection of proper limits, Table III may be used as a general guide for minimum limits of French coefficient of wear and toughness in connection with bituminous broken-stone roads.

TABLE III.—*Minimum limits of physical tests of rock for bituminous-road construction.*

Type of road.	Light to moderate traffic.		Moderate to heavy traffic.	
	French coefficient of wear.	Toughness.	French coefficient of wear.	Toughness.
Broken stone with bituminous carpet.	5=(not over 8 per cent wear).	5	7=(not over 5.7 per cent wear).	10
Bituminous broken stone with seal coat.				
Bituminous concrete with or without seal coat.	7=(not over 5.7 per cent wear).	7	10=(not over 4 per cent wear).	13

PORTLAND CEMENT CONCRETE AND STONE BLOCK.

The most desirable limitations for broken stone to be used as coarse aggregate in Portland cement concrete wearing surfaces has not as yet been ascertained. In general, however, it would seem that the low limit for hardness should be no less than the hardness of the mortar which binds the rock fragments together. At the present time a minimum hardness of 12 for moderate and 16 for heavy traffic would appear reasonable. In consideration of the type of traffic to which concrete roads are subjected, a minimum toughness of 8 is suggested.

Stone blocks are usually manufactured from granite or sandstone, although other rocks may also be used. Specifications for granite block adopted in 1914 by the American Society of Municipal Improvements¹ call for a toughness of not less than 9 and a crushing strength of not less than 20,000 pounds per square inch. It would appear wise to also require that the hardness be not less than 16.

APPENDIX.

The results of all of the physical tests made on rock samples in the laboratory of the Office of Public Roads and Rural Engineering from the date of its installation in 1902 up to January 1, 1916, are included in Table V, together with the results obtained by Logan Waller Page for the Massachusetts State Highway Commission previous to 1902.

The rocks are classified according to their location, so that this table shows the availability and character of the materials, as far as they have been tested, throughout the United States.

Table IV shows the number of samples of material tested in the different States.

TABLE IV.—*Geographical distribution of samples tested.*

State.	Number of samples tested.	State.	Number of samples tested.	State.	Number of samples tested.
Alabama.....	29	Massachusetts.....	179	South Dakota.....	11
Arizona.....	3	Michigan.....	84	Tennessee.....	61
Arkansas.....	14	Minnesota.....	16	Texas.....	62
California.....	101	Mississippi.....	11	Utah.....	13
Colorado.....	21	Missouri.....	33	Vermont.....	32
Connecticut.....	43	Montana.....	4	Virginia.....	404
Delaware.....	30	Nebraska.....	11	Washington.....	212
Florida.....	9	New Hampshire.....	22	West Virginia.....	139
Georgia.....	157	New Jersey.....	72	Wisconsin.....	139
Idaho.....	9	New York.....	136	Wyoming.....	3
Illinois.....	122	North Carolina.....	137		
Indiana.....	151	Ohio.....	138		3,605
Iowa.....	23	Oklahoma.....	50	Canada.....	49
Kansas.....	11	Oregon.....	14	Porto Rico.....	12
Kentucky.....	41	Pennsylvania.....	599	Cuba.....	4
Louisiana.....	7	Rhode Island.....	38		
Maine.....	72	South Carolina.....	26	Total.....	3,670
Maryland.....	116				

¹ Proceedings of the 1914 Convention of the American Society of Municipal Improvements, p. 511.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916.

ALABAMA.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
				Pounds.	Pounds.					
1108	Francis.	Calhoun.	Chert.	153	1.74	9.0	4.4	19.3	11	22
1478	Anniston.	do.	Limestone.	168	.27	3.9	10.3	15.2	9	62
4382	do.	do.	Quartzite.	165	.20	3.4	11.7	19.7	21	2
2450	Cullman.	do.	Sandstone.	153	.94	4.8	8.3	15.1	10	37
7387	do.	do.	do.	156	.97	9.2	4.4	18.5	6	4
7588	do.	do.	do.	159	.11	8.6	6.1	17.8	6	5
7786	do.	do.	Feldspathic sandstone.	156	2.00	8.6	4.7	15.6	7	33
2451	do.	do.	Limestone.	168	.55	3.4	11.6	15.1	8	37
2856	do.	do.	do.	163	.92	6.8	5.8	12.0	6	36
5054	Selma.	Dallas.	do.	163	1.56	7.8	5.8	15.0	7	25
7031	Gadsden.	Etowah.	do.	168	.31	4.7	8.5	15.4	4	15
805	Berry.	Fayette.	do.	168	.34	3.1	13.0	(1)	(1)	(1)
426	Farmsdale.	Hall.	do.	162	2.56	17.4	2.3	(1)	(1)	(1)
391	Birmingham.	Jefferson.	Chert.	162	1.28	10.2	3.9	(1)	(1)	(1)
392	do.	do.	do.	159	2.24	8.2	4.9	(1)	(1)	(1)
393	do.	do.	do.	153	3.40	9.5	4.2	(1)	(1)	(1)
966	Leeds.	do.	do.	162	.64	13.8	2.5	(1)	(1)	(1)
395	Birmingham.	do.	Blast-furnace slag.	168	.54	7.6	5.2	14.2	6	58
2493	do.	do.	Slag.	159	1.32	9.9	4.0	15.7	6	14
8879	do.	do.	Blast-furnace slag.	156	2.73	10.1	4.0	15.7	24	81
8880	do.	do.	do.	175	.68	(1)	(1)	17.0	49	262
442	do.	do.	Dolomite.	168	1.24	5.7	7.1	(1)	(1)	(1)
1517	New Decatur.	do.	Limestone.	159	2.91	6.5	6.1	15.4	10	129
6856	Leeds.	Morgan.	Crystalline limestone.	172	.95	3.9	10.2	15.4	7	106
7937	Dorville Switch.	St. Clair.	Weathered chert.	143	.54	13.8	2.9	(1)	(1)	13
2854	Furman.	Tuscaloosa.	Limestone.	168	.10	4.6	8.8	17.7	8	57
1575	Snowhill.	Wilcox.	do.	162	2.76	4.8	8.4	10.3	7	55
1580	do.	do.	do.	162	2.57	4.5	8.9	17.1	7	68
1643	Pineapple.	do.	do.	156	4.89	5.3	7.5	11.0	6	65

ARIZONA.

7887 ⁽²⁾	Phoenix.	Cochise.	Limestone.	168	0.41	5.3	7.6	18.1	6	43
4408	U. S. Government.	Maricopa.	Schist.	187	.31	3.1	12.9	17.5	14	54
4103		do.	Altered andesite.	162	1.95	2.4	16.5	17.6	23	500

¹ Test not made.² Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

ARKANSAS.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
4754	Herbert Springs.....	Cleburne.....	Slate.....	Pounds. 168	Pounds. 0.72	5.6	7.1	9.3	16	21
5680	(1).....	do.....	Argillaceous sandstone.....	168	1.35	3.6	11.2	11.4	19	117
5403	Van Buren.....	Crawford.....	Feldspathic sandstone.....	162	87	4.5	8.9	15.2	10	34
8921	Alma.....	do.....	Sandstone.....	165	.79	2.3	17.0	18.3	10	8
2846	Conway.....	do.....	Ferruginous sandstone.....	159	1.63	4.9	8.1	17.1	9	23
438	Hot Springs.....	Faulkner.....	Chert.....	162	.46	11.1	3.6	(2)	(2)	(2)
7629	Hope.....	Garland.....	Ferruginous sandstone.....	184	1.54	6.9	5.8	18.2	12	32
2298	Paris.....	Hempstead.....	Feldspathic sandstone.....	159	1.27	2.4	16.9	18.9	10	77
1353	Texasiana.....	Logan.....	Ferruginous sandstone.....	178	2.28	4.6	8.6	18.2	16	26
2158	Miller.....	Miller.....	Ferruginous sandstone.....	175	2.25	2.3	17.4	18.9	37	41
2158	Little Rock.....	Pulaski.....	Feldspathic sandstone.....	156	1.25	4.7	10.1	(2)	(2)	50
742	Fort Smith.....	Sebastian.....	Sandstone.....	162	1.39	3.7	10.7	(2)	(2)	70
743	do.....	do.....	do.....	152	1.28	2.2	18.2	17.9	18	41
6331	Bald Knob.....	White.....	do.....	159	2.05	2.7	14.8	19.0	22	8
6954	(1).....	Yell.....	Quartzite.....	165	.54					

CALIFORNIA.

1227	Oakland.....	Alameda.....	Rhyolite (altered).....	165	0.36	1.7	23.0	18.7	33	37
5150	do.....	do.....	Altered rhyolite.....	168	.50	2.7	14.8	17.9	14	25
4372	do.....	do.....	Feldspathic sandstone.....	168	.48	4.7	8.5	16.5	5	177
4373	do.....	do.....	do.....	168	.51	3.6	11.2	18.6	21	39
4374	do.....	do.....	do.....	168	.44	3.0	13.4	18.9	24	63
4377	do.....	do.....	do.....	168	.41	3.5	11.4	17.8	12	18
5151	do.....	do.....	do.....	168	.48	2.2	18.0	18.7	14	94
4376	do.....	do.....	do.....	178	.48	3.3	16.8	18.7	15	136
4376	do.....	do.....	Altered basalt.....	178	1.43	10.5	3.5	19.4	9	18
8902	Newark.....	do.....	Quartz breccia.....	162	1.80	8.5	4.7	(2)	(2)	8
9369	Dumbarton.....	do.....	Chalcedonic quartz.....	165	.35	15.9	4.7	(2)	(2)	33
8891	Newark.....	do.....	Ferruginous chert.....	184	.14	11.0	3.6	12.3	6	86
9370	Dumbarton.....	do.....	Serpentine.....	156	4.04	16.4	2.4	14.0	(2)	49
9371	do.....	do.....	do.....	147	.05	7.1	5.6	(2)	(2)	5
9371	do.....	do.....	Chert conglomerate.....	165	.19	2.1	19.0	19.5	20	17
2031	Milton (5 miles east of).....	Calaveras.....	Rhyolite.....	168	.19	2.1	27.4	19.2	19	42
2032	Milton (3 miles east of).....	do.....	Altered basalt.....	181	.58	1.5	26.0	18.8	44	32
2036	Milton.....	do.....	Altered sandstone.....	178	.11	3.4	11.8	19.5	15	3
2350	Valley Springs (near).....	do.....	Quartzite.....	178	.41	2.8	14.4	18.9	17	29
2351	do.....	do.....	Hornblende chlorite schist.....	178	.84					

	San Pablo.....	Contra Costa.....	Feldspathic sandstone.....	168	.55	2.6	15.2	18.2	16	28
5147	Albany.....	do.....	do.....	168	1.04	5.0	15.2	17.0	11	56
5148	Red Hill.....	Fresno.....	Epidoite.....	168	.22	2.1	18.7	17.6	11	29
2925	Bakersfield.....	Kern.....	Diorite.....	184	.08	3.7	10.8	19.3	36	6
7605	Los Angeles.....	do.....	Granite.....	162	.91	14.8	(2)	(2)	(2)	28
578	Claremont.....	do.....	do.....	162	.57	(2)	(2)	(2)	4	22
2436	Glendale.....	do.....	Altered granite.....	165	.99	4.8	8.4	18.1	18.1	28
3261	(t).....	do.....	Hornblende granite.....	165	.42	4.8	15.9	19.0	20	27
3261	Spadra.....	do.....	Rhyolite.....	147	1.32	5.6	19.7	18.0	22	2
2289	(t).....	do.....	do.....	168	.40	2.6	15.2	19.7	21	46
2353	Spadra (near).....	do.....	Weathered trachytic rhyolite.....	140	5.29	4.4	9.0	16.2	17	191
2946	(t).....	do.....	Trachytic rhyolite.....	153	1.49	5.1	7.9	16.5	19	16
2947	(t).....	do.....	Altered rhyolite.....	134	7.15	6.8	5.9	16.5	9	282
3165	(t).....	do.....	Andesite.....	178	.13	2.3	17.2	18.3	12	149
2290	Spadra.....	do.....	do.....	172	.59	(2)	(2)	(2)	17	108
2294	Hollywood.....	do.....	Agate andesite.....	165	2.43	3.4	11.9	16.7	18	500+
2334	(t).....	do.....	Andesite.....	172	.83	2.2	17.9	17.7	29	500+
2439	(t).....	do.....	Altered andesite.....	156	.21	4.8	8.4	(2)	(2)	135
2694	San Pedro (near).....	do.....	do.....	137	6.59	8.1	4.9	12.9	9	27
2395	(t).....	do.....	do.....	156	1.05	4.0	10.1	17.3	6	500+
2383	Los Angeles.....	do.....	do.....	159	1.67	2.7	15.0	18.2	15	500+
3262	(t).....	do.....	do.....	147	4.71	4.8	8.4	18.2	10	343
3263	(t).....	do.....	do.....	159	2.17	(2)	(2)	17.5	14	500+
3264	(t).....	do.....	Hornblende andesite.....	162	1.07	3.7	10.8	16.9	17	500+
3346	Los Angeles.....	do.....	Diorite.....	172	1.44	4.8	8.3	18.4	9	71
2293	Hollywood.....	do.....	Limestone.....	162	4.65	3.7	10.8	17.2	10	233
2335	(t).....	do.....	Trufaceous limestone.....	181	.93	3.0	13.2	(2)	(2)	15
2332	Los Angeles.....	do.....	Tremolite schist.....	165	.19	4.9	17.2	19.2	21	7
2352	(t).....	do.....	Quartzite schist.....	165	.40	2.3	17.2	18.5	12	25
2356	San Pedro.....	do.....	Quartz syenite.....	165	1.11	3.2	12.6	18.7	11	39
2354	(t).....	do.....	Syenite gneiss.....	165	.52	2.4	16.7	18.7	32	22
2355	(t).....	do.....	Biotite gneiss.....	172	.17	(2)	(2)	18.3	10	59
2356	(t).....	do.....	do.....	172	.34	3.7	10.7	18.3	(2)	226
2437	Glendale.....	do.....	Granite breccia.....	162	1.99	24.6	1.6	17.8	34	60
3166	Los Angeles.....	do.....	Altered trachyte.....	178	.53	1.7	23.5	18.6	18	119
2393	Hollywood (near).....	do.....	Basalt.....	168	1.69	4.0	10.0	18.3	35	35
2597	Lancaster (near).....	do.....	Feldspar basalt.....	165	.75	2.8	14.4	18.7	16	24
3164	(t).....	do.....	Weathered feldspathic quartzite.....	175	.20	2.0	20.4	18.7	8	31
3571	Mariposa.....	do.....	do.....	172	.25	2.4	16.9	18.7	34	28
2657	Jasper Station.....	do.....	Diorite.....	187	1.19	1.7	23.8	18.7	5	31
2658	(t).....	do.....	do.....	175	.18	7.3	5.5	17.1	31	31
2377	Riverside.....	do.....	Rhyolite.....	165	.62	2.2	18.0	18.2	20	31
3544	(t).....	do.....	Altered rhyolite.....	168	.29	1.8	21.7	19.7	24	20
2075	Corona.....	do.....	Andesite.....	172	1.10	3.5	11.3	17.7	16	500+
8643	Corono (near).....	do.....	do.....	162	.87	2.5	16.1	18.8	16	10
2076	(t).....	do.....	Hornblende granite.....	165	.26	6.4	14.2	18.4	5	63
3135	(t).....	do.....	Dolomitic marble.....	196	.31	3.7	10.8	18.4	15	8
3545	(t).....	do.....	Pyroxene quartzite.....	175	.29	1.4	28.6	19.3	36	19
3546	(t).....	do.....	Altered andesite.....	187	.17	1.7	23.5	19.5	37	19
2420	Sacramento.....	do.....	Altered basalt.....	187						
8300	Fair Oaks.....	do.....	do.....							

² Test not made.¹ Exact locality not known.

TABLE V.—*Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.*

CALIFORNIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
2288	Colton.....	San Bernardino.	Marble.....	Pounds. 172	Pounds. .22	5.8	6.9	14.5	3	28
2434	Barstow.....	do.....	do.....	168	.17	4.4	9.1	14.4	4	48
7426	San Luis Obispo (near).	San Luis Obispo.	Feldspathic sandstone.....	163	2.62	4.7	8.6	13.3	9	102
3085	Rockaway.....	San Mateo.	Limestone.....	163	.44	4.5	8.9	(¹)	(¹)	32
4143	Vistacon.....	do.....	Feldspathic sandstone.....	162	1.54	2.5	16.3	14.9	7	44
5152	Rockaway.....	do.....	Calcareous chert.....	165	.25	4.6	8.6	19.0	11	40
1703	Santa Barbara.....	Santa Barbara.	Feldspathic sandstone.....	136	2.52	7.0	5.7	10.3	5	138
2128	Hope Rancho.....	do.....	Limestone.....	(¹)	(¹)	3.3	12.0	13.9	12	76
2130	Lomboc.....	do.....	Altered chert.....	(¹)	(¹)	(¹)	(¹)	19.7	5	25
2133	Lomboc (near).	do.....	Chert.....	(¹)	(¹)	10.9	3.7	(¹)	(¹)	97
1004	Saratoga.....	Santa Clara.	Feldspathic sandstone.....	168	.40	4.9	8.1	17.1	19	46
1025	Palo Alto.....	do.....	Feldspar basalt.....	168	1.18	3.1	12.8	13.6	16	162
1026	do.....	do.....	Banded chert.....	162	.72	23.5	1.7	(¹)	(¹)	12
2010	do.....	do.....	Altered trachyte.....	175	.66	3.2	12.3	17.7	11	331
8098	Coyote.....	do.....	Siliceous limestone.....	168	1.27	2.3	17.3	16.7	8	75
1750	Montague.....	Siskiyou.	Andesite.....	150	3.80	6.8	5.9	16.3	10	21
1186	Cordelia (near).	Solano.	Olivine basalt.....	175	.93	2.3	17.7	18.8	30	214
2758	Cordelia.....	do.....	do.....	175	.38	1.7	24.1	18.9	31	16
2759	do.....	do.....	do.....	172	1.72	3.2	12.7	18.5	19	85
5149	Bencia.....	do.....	do.....	172	1.35	3.1	12.9	18.3	30	45
5153	do.....	do.....	do.....	178	1.29	2.0	20.0	18.3	21	31
1187	Cordelia.....	do.....	Diorite.....	187	.35	2.1	19.3	(¹)	(¹)	29
5079	Petaluma (near).	Sonoma.	Andesite tuff.....	115	12.50	17.4	2.3	5.0	5	111
6576	Petaluma.....	do.....	Basalt.....	181	.89	2.0	19.6	18.2	26	33
1705	Camarillo.....	Ventura.	do.....	143	5.18	6.1	6.5	7.9	7	500+
2132	do.....	do.....	Altered andesite.....	(¹)	(¹)	6.1	6.6	13.4	9	500+
2837	Round Mountain.....	do.....	Andesite.....	172	1.27	2.8	14.2	17.8	21	131
2540	Ventura.....	do.....	Volcanic breccia.....	137	8.79	8.8	4.5	12.2	3	500+
2572	do.....	do.....	Limestone.....	168	4.47	2.1	18.7	16.0	10	96
2573	Santa Paula Creek.....	do.....	Sandstone.....	162	1.69	2.0	20.2	16.7	17	55
2286	do.....	(¹)	Garnetiferous hornblende schist.....	187	1.19	2.4	16.7	16.4	11	112
2291	do.....	(²)	Argillaceous limestone.....	156	2.04	4.7	8.4	10.4	8	500+
2292	Hacienda.....	(²)	do.....	156	5.04	4.4	9.0	10.4	11	500+

COLORADO.

3113	Boulder.....	Boulder.....	Sandstone.....	146	2.11	5.3	7.6	16.5	7	16
3114	do.....	do.....	Augite andesite.....	175	.52	3.0	13.3	18.3	18	135
3116	(?).....	do.....	Altered andesite.....	156	2.73	2.6	15.3	18.3	20	73
3204	Crag.....	do.....	Altered granite.....	165	.24	2.4	16.7	18.8	17	13
2106	Silver Cliff.....	Custer.....	Rhyolite breccia.....	134	5.53	7.8	5.1	(1)	(1)	500+
2304	do.....	do.....	do.....	128	6.11	5.6	7.1	15.5	7	500+
4994	Denver.....	do.....	Slag (smelter).....	215	.25	4.3	9.3	(1)	(1)	47
2458	Colorado Springs (near).....	El Paso.....	Tephrite.....	134	4.21	3.2	12.7	19.1	21	82
1372	Portland.....	Fremont.....	Biotite granite.....	162	.42	8.2	4.9	(1)	(1)	14
1374	do.....	do.....	Limestone.....	162	2.60	4.5	8.8	(1)	(1)	71
396	Lake City.....	Hinsdale.....	Rhyolite breccia.....	156	3.21	5.7	7.0	(1)	(1)	327
397	Sherman.....	do.....	Porphyritic granite.....	175	.44	8.1	4.6	(1)	(1)	(1)
398	Lake Shore post office.....	do.....	Rhyolite tuff.....	162	2.90	10.3	3.8	(1)	(1)	(1)
406	do.....	do.....	do.....	156	.15	3.4	11.9	(1)	(1)	(1)
399	Capitol City (near).....	do.....	Brecciated felsite.....	162	3.13	3.5	11.5	(1)	(1)	(1)
407	Lake City (near).....	do.....	Andesite.....	162	2.83	6.3	12.3	(1)	(1)	(1)
408	do.....	do.....	Rhyolite andesite.....	168	2.00	3.2	12.5	(1)	(1)	(1)
409	do.....	do.....	Diorite.....	168	1.03	3.2	17.9	(1)	(1)	(1)
3293	Golden.....	do.....	Basalt.....	172	1.43	2.2	6.1	15.9	15	222
4724	Fort Collins.....	Jefferson.....	Limestone.....	159	3.24	6.5	3.5	(1)	(1)	32
1602	La Junta.....	Otero.....	do.....	153	6.04	7.3	5.5	3.0	7	95

CONNECTICUT.

2798	Danbury.....	Fairfield.....	Marble.....	172	0.39	5.7	7.0	15.2	6	41
3177	Bridgeport.....	do.....	Feldspathic quartzite.....	165	.38	2.2	18.2	18.5	12	15
3178	do.....	do.....	Granite gneiss.....	165	.37	2.4	16.8	18.5	10	35
6111	do.....	do.....	do.....	165	.25	2.5	16.3	18.8	9	15
6112	do.....	do.....	Biotite gneiss.....	162	1.02	3.0	13.3	18.0	11	16
3223	do.....	do.....	Diabase.....	190	.17	3.3	12.0	18.3	30	37
3477	Danbury.....	do.....	do.....	184	.27	1.1	36.4	(1)	(1)	82
2233	Rockyhill.....	Hartford.....	do.....	(1)	(1)	2.4	17.0	(1)	(1)	(1)
2250	do.....	do.....	Altered diabase.....	187	.55	1.7	23.8	18.2	24	500+
2381	Canton.....	do.....	Gabbroitic diabase.....	184	1.06	(1)	(1)	18.0	13	50
3320	Rockyhill.....	do.....	Altered diabase.....	184	1.35	1.8	22.7	16.8	22	192
5977	Suñehad.....	do.....	do.....	187	.27	1.9	22.8	18.3	33	85
7399	Hartford.....	do.....	do.....	178	1.80	2.1	18.9	17.2	12	200+
4013	Plainville.....	do.....	Basalt.....	184	.30	3.5	13.4	18.1	22	170
2873	New Milford.....	Litchfield.....	Hornblende schist.....	187	.30	3.5	11.4	18.4	6	24
6995	Torrington.....	do.....	do.....	198	.12	3.0	13.3	16.3	8	9
5815	do.....	do.....	Granite gneiss.....	165	.55	(1)	(1)	18.3	11	32
6905	Sharon.....	do.....	Sliteous dolomite.....	178	.56	5.5	7.3	11.3	7	49
6750	Torrington.....	do.....	Amphibolite.....	196	.16	2.3	17.4	16.9	10	16
2241	Middlesex.....	do.....	Diabase.....	184	1.08	1.7	23.3	16.5	8	500+

² Exact locality not known.¹ Test not made.

TABLE V.—*Results of physical tests of road-building rock from the United States, Canada, and Cuba, complete to January 1, 1916*—Contd.

CONNECTICUT—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
11	Meriden.....	New Haven.....	Augite diabase.....	Pounds, 178	Pounds, (1)	3.2	12.5	(1)	(1)	(1)
71	do.....	do.....	Diabase.....	(1)	(1)	2.6	15.5	(1)	(1)	(1)
215	do.....	do.....	do.....	(1)	(1)	2.2	18.8	(1)	(1)	(1)
349	do.....	do.....	do.....	(1)	(1)	3.5	11.5	(1)	(1)	(1)
467	Meriden.....	do.....	do.....	175	.77	2.4	16.9	(1)	(1)	287
1204	do.....	do.....	do.....	181	.65	2.4	16.5	17.6	15	500+
1324	Ansonia.....	do.....	Altered diabase.....	172	1.03	1.8	22.3	17.9	32	154
2249	do.....	do.....	Diabase.....	190	.43	1.8	22.2	17.3	17	500+
5002	Meriden.....	do.....	Altered diabase.....	175	.31	3.4	11.8	16.6	8	376
5758	do.....	do.....	do.....	184	2.17	2.0	20.4	18.6	23	40
8178	(3)	do.....	do.....	184	1.24	2.1	19.0	17.5	19	114
954	Ansonia.....	do.....	Diabase.....	187	.59	2.1	19.2	(1)	(1)	(1)
1323	do.....	do.....	Basalt.....	168	.40	3.1	12.9	17.6	20	48
2795	Levyard.....	do.....	Biotite gneiss.....	184	.19	3.4	11.8	18.0	18	28
1042	Rockville.....	New London.....	Hornblende schist.....	187	.23	2.0	19.6	(1)	(1)	101
1061	do.....	Tolland.....	Diabase.....	187	.18	1.9	21.1	18.7	43	58
940	do.....	do.....	do.....	168	.25	2.2	18.9	17.7	10	33
953	do.....	do.....	Gneiss.....	187	.68	4.7	8.5	16.6	(1)	35
1104	do.....	do.....	Altered biotite gneiss.....	190	.47	3.4	11.7	17.6	7	38
8177	do.....	do.....	Gneiss.....	162	.67	5.2	7.7	19.0	(1)	46
206	Plainfield.....	do.....	Hornblende schist.....	(1)	(1)	1.8	22.2	(1)	(1)	(1)
1615	Windham.....	do.....	Diabase.....	162	1.03	11.2	3.6	15.8	6	30
1616	do.....	do.....	Granite.....	165	1.12	(1)	(1)	13.6	(1)	25
1616	do.....	do.....	Biotite granite.....	165	1.12	(1)	(1)	13.6	(1)	25

DELAWARE.

858	Greenbank.....	New Castle.....	Quartzite.....	187	.08	2.7	15.1	18.4	30	31
862	do.....	do.....	Quartzite (micaceous).....	168	.10	2.6	15.2	(1)	(1)	20
864	do.....	do.....	Pyroxene quartzite.....	190	.12	2.2	18.3	(1)	(1)	13
1364	Wilmington.....	do.....	do.....	181	.10	2.1	18.7	18.5	24	7
5711	(2)	do.....	Feldspathic quartzite.....	168	.27	2.5	16.3	18.7	21	15
863	Wooddale.....	do.....	Hornblende schist.....	196	.12	3.0	13.6	16.5	18	54
2012	Mill Creek Hundred.....	do.....	Biotite schist.....	168	.83	6.6	6.1	(1)	(1)	75
2029	Wooddale.....	do.....	do.....	175	.39	3.3	12.2	16.8	10	33
2574	do.....	do.....	Hornblende schist.....	196	.23	2.8	14.3	17.4	19	20
3490	Ashland.....	do.....	do.....	187	.19	4.3	9.3	17.2	9	26
3535	Marshallton.....	do.....	do.....	190	.10	5.2	7.7	17.8	11	5

4033	Wooddale.....	do.	175	19	4.5	8.8	17.8	10	26
4615	do.	do.	175	.43	5.4	7.4	17.2	11	21
5875	Newark.....	do.	187	.29	2.6	15.4	17.7	11	40
805	Wooddale.....	do.	165	.15	3.4	11.9	(1)	(1)	22
2515	do.	do.	175	.37	3.9	10.3	17.7	6	34
4032	do.	do.	168	.37	5.1	7.9	18.3	8	17
1363	Wilmington.....	do.	172	.13	1.0	41.7	18.6	18	14
1365	do.	do.	187	.16	1.6	25.3	18.2	17	19
3098	do.	do.	187	.17	3.7	10.8	18.0	9	18
2247	do.	do.	125	9.01	8.86	(1)	16.2	4	(1)
2348	do.	do.	125	8.52	17.6	(1)	17.6	6	(1)
3452	do.	do.	147	5.52	15.1	2.6	17.3	3	500+
3553	Hockessin.....	do.	172	.54	12.8	3.1	17.3	7	26
3534	Marshallton.....	do.	190	.02	5.6	7.2	18.0	12	21
4921	do.	do.	175	.27	4.4	9.2	17.0	7	55
5713	do.	do.	172	.19	4.8	8.3	18.0	8	18
8736	Mill Creek Hundred.....	do.	175	.24	4.5	8.8	18.2	7	19
8919	Newark (near).....	do.	178	.57	5.0	9.0	15.9	5	21
5712	do.	do.	178	.35	4.2	9.6	14.3	6	31

FLORIDA.

1129	Gainesville.....	Alachua.....	Chert.....	(1)	13.9	2.9	(1)	(1)	64
3018	Raleigh.....	do.	do.	153	7.1	5.6	(1)	(1)	6
1169	Floral City.....	Citrus.....	Siliceous limestone.	155	17.6	2.3	(1)	(1)	230
6588	do.	do.	Limestone.....	(1)	(1)	(1)	(1)	(1)	38
702	Tampa.....	Hillsborough.....	Dolomite.....	162	18.6	2.2	(1)	(1)	135
6963	do.	do.	Limestone.....	150	9.4	4.3	5.6	3	5
5974	Fort Myers.....	Lee.....	Shell limestone.....	153	13.1	3.0	12.3	6	65
8387	Ocala.....	Marion.....	Weathered chert.....	143	10.9	3.7	13.8	10	10
7218	Live Oak.....	Suwannee.....	Limestone.....	162	(1)	(1)	12.1	3	37

GEORGIA.

417	(2)	Barlow.....	Dolomite.....	181	8.2	4.9	(1)	(1)	(1)
8092	Cartersville.....	do.	do.	178	(1)	(1)	17.5	14	26
9577	Union City.....	Catoosa.....	Granite.....	165	3.0	13.3	18.5	6	16
424	Chickamauga Park.....	do.	Decomposed limestone.	168	4.9	8.3	(1)	(1)	(1)
8721	Graysville.....	do.	Siliceous limestone.	168	5.5	7.3	14.7	7	30
8708	Summerville.....	Chattooga.....	Limestone.....	168	4.5	8.9	15.7	9	41
938A	Holton (2 miles north of).....	Bibb.....	Biotite gneiss.....	(1)	(1)	(1)	16.2	4	(1)
938B	do.	do.	do.	165	5.7	7.0	19.3	4	14
583	Canton.....	Cherokee.....	Eclogite.....	228	2.9	13.8	(1)	(1)	15
9329	Ball Ground.....	do.	Marble.....	168	7.7	5.2	11.2	2	31
415	(1)	Coweta.....	Diabase.....	190	2.3	17.4	(1)	(1)	8

¹ Test not made.² Exact locality not known.

TABLE V.—*Results of physical tests of road-building rock from the United States, Canada, and Cuba, complete to January 1, 1916*—Contd.

GEORGIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
9580	Newman (near)	Coweta.	Diabase.	Pounds. 190	Pounds. 36	2.4	17.0	18.7	28	17
9581	do.	do.	do.	190	40	2.2	18.2	19.3	37	31
421	Lithonia.	De Kalb.	Acid granite.	168	12	4.8	8.3	(1)	(1)	9
423	Stone Mountain Station.	do.	do.	162	16	5.3	7.9	(1)	(1)	15
9140	Atlanta.	do.	Hornblende gneiss.	175	83	5.1	7.5	16.8	6	26
5586	Stone Mountain 2.	do.	Muscovite granite.	(1)	(1)	(4)	(1)	18.2	9	(1)
9325	Lithonia.	do.	Granite.	165	14	4.6	8.7	18.5	5	18
9326	do.	do.	do.	165	36	5.1	7.8	18.3	3	9
9327	do.	do.	do.	165	24	4.5	8.9	18.8	4	14
9579	Stone Mountain.	do.	Muscovite granite.	163	23	4.4	9.1	18.5	6	12
416	New Elberton.	Elbert.	Granite.	168	15	3.0	13.1	(1)	(1)	9
7941	Ogleby.	do.	Granite.	(1)	(1)	(1)	(1)	18.4	9	(1)
8691	Rome.	Floyd.	Limestone.	168	18	6.1	6.6	15.5	4	48
9307	Atlanta (near).	Fulton.	Feldspathic quartzite.	165	34	2.8	14.3	19.0	16	17
9321	do.	do.	do.	162	51	5.1	7.8	18.5	20	8
9391	do.	do.	Schistose quartzite.	172	32	3.5	11.4	18.8	11	25
7020	Atlanta (8 miles north of)	do.	Sericite schist.	168	24	4.0	10.0	17.8	10	9
9576	Atlanta (near)	do.	Biotite schist.	168	58	6.4	6.2	17.7	7	16
9320	do.	do.	do.	175	26	5.4	7.4	15.5	16	26
9153	do.	do.	Orthoclase biotite schist.	168	54	3.1	12.9	18.0	14	15
9177	do.	do.	Biotite schist.	168	71	8.6	4.7	(1)	(1)	12
9178	do.	do.	Mica schist.	168	49	6.1	6.6	18.3	14	14
9180	do.	do.	Hornblende schist.	187	52	4.3	9.4	17.7	6	19
9182	do.	do.	Biotite schist.	178	55	4.6	8.7	16.5	9	42
9195	do.	do.	Hornblende schist.	187	54	5.3	7.5	18.3	10	18
9197	do.	do.	Hornblende epidote schist.	184	43	6.5	6.2	17.7	15	25
9198	do.	do.	do.	187	24	5.3	7.6	17.7	9	27
9302	do.	do.	Biotite schist.	168	47	7.0	5.7	(1)	8	20
9304	do.	do.	do.	168	59	7.6	5.3	(1)	(1)	39
9308	do.	do.	do.	172	26	6.1	6.6	18.3	15	14
9589	do.	do.	Biotite epidote schist.	178	32	3.5	11.4	18.0	4	26
422	do.	do.	Hornblende gneiss.	187	98	3.9	10.2	(1)	(1)	(1)
9142	do.	do.	Hornblende biotite gneiss	172	54	4.1	9.8	19.0	7	18
9145	do.	do.	Biotite gneiss.	172	54	4.3	9.3	18.5	9	12
9138	do.	do.	Granite gneiss.	172	27	2.8	14.3	18.2	7	20
9139	Atlanta.	do.	do.	165	39	3.9	12.5	18.3	10	18
9141	Atlanta (near)	do.	do.	165	1.39	4.3	8.3	18.3	6	18
9146	College Park.	do.	Biotite gneiss.	163	43	10.5	3.3	17.0	4	25
9148	Atlanta (near)	do.	do.	178	.67	11.5	3.4	(1)	(1)	17

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

GEORGIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
				Pounds.	Pounds.					
9301	Atlanta (near)	Fulton	Granite porphyry	139	2.39	6.9	5.8	(1)	(1)	68
9311	Atlanta	do.	Granite	168	.25	6.8	5.9	17.7	5	12
9313	Atlanta (near)	do.	Biotite granite	165	.31	6.8	5.9	18.5	3	15
9315	do.	do.	Weathered granite	165	1.13	13.4	3.0	14.3	5	21
3092	Atlanta	do.	Granite	(1)	(1)	(1)	(1)	18.3	8	(1)
3100	do.	do.	do.	(1)	(1)	(1)	(1)	18.3	8	(1)
9316	Atlanta (near)	do.	Biotite granite	168	.38	7.3	5.5	17.3	4	20
9317	do.	do.	do.	165	.60	12.8	3.1	15.0	4	23
9574	do.	do.	do.	165	.68	5.1	7.8	18.7	5	19
9575	do.	do.	do.	165	.43	3.1	12.9	18.5	9	25
9582	do.	do.	do.	168	.31	5.0	8.0	19.0	8	20
9583	do.	do.	Granite	168	.53	7.8	5.1	19.0	5	10
9585	do.	do.	Gneissoid granite	162	.69	7.9	5.1	17.7	(1)	34
9586	do.	do.	Altered granite porphyry	162	.62	8.1	4.9	17.7	6	21
9587	do.	do.	Biotite granite	168	.28	6.4	6.3	19.0	7	27
38	do.	do.	do.	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1639	Gainesville	Cordon	Chert	178	.26	4.8	8.4	13.7	7	57
1640	do.	Hall	Dolomitic marble	178	.21	7.0	3.9	9.6	5	27
1641	do.	do.	do.	175	.52	6.7	6.0	13.8	4	38
2469	do.	do.	do.	(1)	(1)	(1)	(1)	19.3	11	10
2470	do.	do.	Granite gneiss	(1)	(1)	(1)	(1)	18.2	8	26
2471	do.	do.	do.	(1)	(1)	(1)	(1)	15.5	6	17
9203	Cataula	do.	Mica schist	172	.27	4.5	8.9	17.8	7	17
9204	do.	Harris	Biotite gneiss	165	.26	4.6	8.7	18.7	7	20
9331	do.	do.	Granite gneiss	162	.98	2.6	15.3	19.0	7	9
9333	do.	Henry	Granite	162	.57	6.8	5.9	19.2	6	11
9336	do.	do.	do.	168	.36	6.5	6.2	18.3	4	10
420	Roberts Station	do.	Diabase	187	.42	2.6	15.2	(1)	(1)	(1)
9328	Harris (2 miles from)	Jones	Granite	162	.31	7.7	5.2	18.0	6	18
9578	Greenville (near)	Mariwether	do.	165	.47	3.5	11.4	18.7	4	21
8118	Holton (near)	do.	Biotite gneiss	168	.26	5.1	7.7	18.0	4	21
9334	Juliette (1 mile north of)	Bibb	Hornblende gneiss	184	.37	6.1	6.5	16.5	4	12
9332	Paeahill Quarry	Monroe	Quartzite	168	.39	2.3	17.4	18.0	15	27
9335	do.	do.	Applite granite	165	.23	3.3	10.3	17.8	5	12
9539	Covington (near)	do.	Biotite granite	162	.89	5.9	6.8	18.5	(1)	12
9540	Oxford (near)	do.	Granite	162	.85	9.1	4.4	18.5	4	15
9541	do.	do.	do.	165	.55	8.1	4.9	18.2	(1)	14
9542	Covington	do.	Gneissoid granite	165	.63	4.0	10.0	18.2	7	15
9543	Covington (near)	do.	Altered rhyolite	162	1.25	10.5	3.8	(1)	(1)	37

	Pickens	Marble		10.2	3.9	12.7	
9019	Tate	Marble	168	.34		4	29
9020	do.	do.	168	.48	(1)	4	29
9330	do.	do.	172	.26	12.3	8.7	41
6918	Rock Mart.	Siliceous limestone	172	.19	3.1	12.0	21
8657	Portland	Dolomitic limestone	172	.23	11.6	17.1	33
8688	do.	Limestone	172	.26	9.0	15.7	45
419	Richmond	Granite gneiss	165	.37	9.0	(1)	(1)
3733	Conyers	Biotite gneiss	165	.24	15.4	(1)	(1)
9503	Conyers (near)	do.	165	.28	9.1	18.6	14
9500	do.	do.	165	.40	6.9	18.0	24
9501	do.	Gneissoid granite	165	.51	7.4	(1)	15
9502	do.	Granite	165	.68	7.0	18.0	19
9504	do.	Granite	162	.64	8.5	18.7	11
9504	do.	do.	162	.52	8.9	18.3	11
9505	do.	do.	162	.18	10.8	18.7	9
468	Toccoa	Gneiss	162	.32	7.7	(1)	(1)
413	Stevens	Limestone	162	3.8	10.6	(1)	86
414	Walker	Chert	143	3.42	27.9	(1)	6
418	do.	do.	187	3.70	16.4	(1)	(1)

IDAHO.

	Ada	Rhyolite		6.1	6.6	15.3	
1261	Boise	Basalt	134	5.87	6.1	15.3	14
1263	do.	do.	172	1.88	7.6	18.1	9
1264	do.	do.	180	1.02	2.7	14.9	8
6162	Pocatello (2 miles southeast of)	Olivine basalt	178	1.44	4.8	16.3	12
6163	Pocatello (7 miles southeast of)	Feldspathic sandstone	168	.74	8.4	16.7	11
6164	Pocatello (1 mile southeast of)	Feldspathic quartzite	168	.31	(1)	16.7	9
4394	Coeur d'Alene	Basalt	178	.98	3.1	12.7	9
1271	Moscow	do.	153	5.14	7.7	19.0	2
1273	do.	do.	178	1.41	5.2	5.9	6
					8.7	(1)	464
							27

ILLINOIS.

	Adams	Limestone		1.66	7.6	5.3	
1322	Quincy	do.	165	1.01	6.0	10.6	46
2396	do.	do.	168	.51	5.3	13.2	6
2397	do.	Limestone and chert	168	3.80	7.8	12.7	37
437	Elco	Chert	150	4.13	5.9	(1)	67
584	do.	do.	182	.50	2.7	(1)	12
1443	Ullin (near)	do.	169	1.09	14.6	19.4	5
7148	Olive Branch	do.	150	1.82	5.8	(1)	15
7213	Brookville (near)	Argillaceous dolomite	172	.64	6.3	10.6	64
7421	do.	do.	165	2.64	5.4	15.0	3
7422	do.	do.	165	3.45	7.4	14.2	105
7423	do.	do.	165	2.70	6.1	13.6	67
7423	do.	do.	165	5.2	7.6	14.8	74
2391	Marshall	Limestone	165	.91	3.7	10.8	31

2 Exact locality not known.

1 Test not made.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

ILLINOIS—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
2392	Casey.....	Clark.....	Limestone.....	Pounds. 168	Pounds. .68	5.2	7.7	15.7	4	33
5846	do.....	do.....	do.....	168	.64	4.8	8.3	15.0	8	49
4422	Embaras.....	Coles.....	do.....	168	1.42	4.2	9.5	14.2	6	40
7615	Loxa.....	do.....	Argillaceous limestone.....	168	.43	4.8	8.3	15.0	7	38
716	Chicago.....	Cook.....	Dolomite.....	168	.58	4.4	9.1	(1)	(1)	30
756	do.....	do.....	do.....	168	.86	5.8	6.9	(1)	(1)	(1)
4126	(2).....	do.....	do.....	172	.84	6.0	6.6	15.1	8	34
5509	Thornton.....	do.....	do.....	162	2.15	4.9	8.2	13.5	7	16
5755	do.....	do.....	Siliceous dolomite.....	156	4.44	5.3	7.5	13.0	6	128
6953	do.....	do.....	Dolomite.....	172	1.02	6.1	6.6	12.7	7	24
7737	do.....	do.....	do.....	168	.88	5.1	7.9	16.0	11	26
7739	Bellewood.....	do.....	Argillaceous dolomite.....	168	2.11	4.5	8.9	15.8	9	37
7754	Thornton.....	do.....	Dolomite.....	168	1.68	4.5	8.9	13.9	10	27
7768	Chicago.....	do.....	do.....	172	.76	4.8	8.3	15.8	10	40
7733	do.....	do.....	do.....	168	.90	4.2	9.5	13.8	7	34
8069	La Grange.....	do.....	do.....	168	1.59	6.5	8.1	16.0	6	32
8147	do.....	do.....	do.....	162	1.52	4.9	8.1	13.0	6	46
8711	Hillside.....	do.....	Argillaceous dolomite.....	162	3.97	4.2	9.5	14.7	4	110
2165	Chicago.....	do.....	Blast-furnace slag.....	(1)	(1)	12.7	3.1	15.8	3	33
2166	do.....	do.....	do.....	(1)	(1)	12.7	3.1	14.8	3	156
2167	do.....	do.....	do.....	(1)	(1)	8.4	4.3	15.0	8	11
2316	do.....	do.....	Slag.....	178	.33	13.5	3.0	17.5	(1)	16
8007	do.....	do.....	Limestone.....	168	.56	4.7	8.5	6.5	4	52
5929	(2).....	do.....	Altered andesite.....	(1)	(1)	(1)	(1)	18.1	16	(1)
5929	Chicago.....	do.....	do.....	162	1.64	9.1	4.4	14.2	6	32
2678	Naperville.....	Dupage.....	Dolomite.....	165	.34	4.6	8.7	17.0	8	40
5798	Elmhurst.....	do.....	Argillaceous dolomite.....	168	1.02	5.4	7.4	13.7	7	34
2389	Paris.....	Edgar.....	Limestone.....	168	.88	5.3	7.5	15.2	6	35
2390	do.....	do.....	do.....	165	.69	6.6	6.0	15.7	4	30
2424	Cherrypoint.....	do.....	do.....	168	.67	9.2	4.3	16.0	8	36
6370	Gilmore.....	Efingham.....	do.....	168	4.89	8.0	5.0	8.7	4	36
2401	Pontotoc.....	Hancock.....	Argillaceous limestone.....	159	3.71	6.5	5.0	17.2	4	40
2402	Hamilton.....	do.....	Limestone.....	153	3.71	6.5	5.0	17.2	5	61
2400	Gladstone.....	do.....	do.....	162	1.36	9.1	4.4	9.7	5	42
3258	Biggsville.....	Henderson.....	do.....	162	2.45	4.9	8.2	18.1	6	67
9228	Grafton.....	do.....	Argillaceous dolomite.....	159	3.68	6.1	6.6	12.5	5	26
9229	do.....	do.....	do.....	156	2.07	7.7	5.2	12.7	4	14
9230	do.....	do.....	do.....	162	1.83	7.1	5.6	16.5	4	14
(2).....	do.....	do.....	Limestone.....	168	1.80	13.1	3.0	(1)	(1)	(1)
452	Jo Daviess.....	do.....	Sandstone.....	160	2.92	4.4	9.1	15.9	6	(1)
4660	Tunnel Hill.....	Johnson.....	do.....	150	2.02	4.4	9.1	15.9	6	(1)
6598	Vienna (near).....	do.....	Argillaceous limestone.....	165	.73	3.8	10.5	17.8	20	73

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

ILLINOIS—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
770	Smithton.....	St. Clair.....	Limestone.....	Pounds. 168	Pounds. .30	4.4	9.2	(1)	(1)	(1)
786	do.....	do.....	do.....	168	.17	5.9	6.8	(1)	(1)	88
7214	Columbia.....	do.....	do.....	162	2.56	3.4	11.6	11.9	5	81
7622	Stolle.....	do.....	do.....	168	.28	4.3	9.2	14.7	7	48
7734	East St. Louis.....	do.....	do.....	168	.47	4.3	9.4	14.3	8	23
8148	(2).....	do.....	do.....	168	.72	3.0	13.2	16.7	6	69
7652	Winchester.....	Scott.....	Argillaceous limestone.....	172	.65	5.6	7.1	14.5	3	20
6083	Thornion.....	do.....	Dolomite.....	165	1.56	3.5	7.3	13.7	5	54
3225	Kalamazoo.....	Union.....	Limestone.....	168	.61	4.2	9.5	(1)	(1)	15
5549	Anna.....	do.....	do.....	168	.42	3.3	12.0	14.3	9	16
7623	do.....	do.....	do.....	165	1.08	3.0	8.1	13.3	5	58
7628	Farmount.....	Vermilion.....	do.....	165	1.20	5.1	7.9	14.0	8	40
1298	Joliet.....	Will.....	Dolomite.....	168	2.58	4.3	9.4	12.9	6	35
2774	do.....	do.....	do.....	165	1.33	5.8	6.9	15.4	5	27
2775	do.....	do.....	do.....	165	1.75	5.2	7.7	15.0	8	23
2776	do.....	do.....	do.....	172	2.87	4.7	8.4	15.7	10	43
2777	do.....	do.....	do.....	168	2.21	4.7	8.5	14.3	9	74
2773	do.....	do.....	Chert.....	153	3.84	7.1	5.6	19.2	22	16
8075	(2).....	do.....	Dolomite.....	165	.76	10.3	3.9	13.8	6	100
7374	(2).....	Cook.....	Argillaceous dolomite.....	162	4.65	4.7	8.5	11.3	5	33

INDIANA.

1346	Pleasant Mills.....	Adams.....	Dolomitic limestone.....	159	3.56	10.2	3.9	(1)	(1)	22
7744	Fort Wayne.....	Allen.....	Hornblende granite.....	168	.50	2.4	16.7	10.2	5	20
1382	Hope.....	Bartholomew.....	Limestone.....	172	1.71	5.9	6.7	7.3	5	41
1384	Burnsville.....	do.....	do.....	165	.97	6.0	6.7	14.8	8	25
1416	Grammer.....	do.....	do.....	139	1.37	6.2	6.5	15.2	5	49
1378	Montpelier.....	Blackford.....	Dolomitic limestone.....	165	2.97	3.7	10.8	(1)	(1)	52
2077	do.....	do.....	Dolomite.....	172	1.19	6.4	6.2	14.8	11	28
9342	Hartford.....	do.....	Dolomite.....	168	2.68	3.3	12.1	15.3	16	16
1206	Delphi.....	Carroll.....	Dolomitic limestone.....	172	.75	5.1	7.9	16.2	21	42
1344	Washington.....	do.....	Limestone.....	172	.50	8.7	4.6	17.2	5	45
5534	Logansport.....	Cass.....	do.....	168	.40	5.1	7.8	13.8	5	30
2851	do.....	do.....	Cherty limestone.....	168	.20	9.1	4.1	14.0	31	30
3865	do.....	do.....	Dolomite.....	168	.33	4.1	9.8	16.1	9	47

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, and Cuba, complete to January 1, 1916—Contd.

INDIANA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
1413	Deputy.	Jefferson.	Limestone.	Pounds. 168	43	4.7	8.5	10.9	7	81
4699	do.	do.	do.	168	46	5.0	5.0	15.3	9	(1)
1458	Hayden.	Jennings.	do.	168	83	3.2	12.6	14.9	9	97
1488	Bewersville.	do.	Dolomitic limestone.	168	57	3.7	10.9	13.8	8	94
4702	North Vernon.	do.	do.	162	3.79	4.4	9.1	14.9	8	(1)
515	Freelandville.	Knox.	Limestone.	172	.65	3.8	10.6	(1)	(1)	42
540	Bicknell.	do.	Dolomitic limestone.	168	.90	4.0	10.1	(1)	(1)	47
588	Freelandville.	do.	Arenaceous dolomite.	175	1.26	2.5	16.1	(1)	(1)	179
4197	Mitchell.	Lawrence.	Argillaceous dolomite.	153	5.77	8.1	5.0	2.7	4	75
1423	do.	do.	Limestone.	162	1.66	4.6	8.8	13.0	9	26
1489	Williams (near).	do.	Dolomitic limestone.	168	.70	4.1	9.7	16.4	8	141
4697	Bedford.	do.	Limestone.	159	3.08	6.2	6.4	10.3	6	(1)
4698	Lawrenceport.	do.	do.	156	2.46	13.3	3.0	5.7	8	(1)
5027	Bedford.	do.	do.	156	2.97	6.4	6.2	8.5	4	13
5028	do.	do.	do.	165	.76	4.2	9.5	15.3	5	38
(1)	do.	do.	do.	156	2.42	7.6	5.3	8.3	5	20
5029	do.	do.	do.	168	.29	5.6	7.2	14.6	5	50
1379	Ingalls.	Madison.	do.	165	1.41	4.3	9.3	11.8	7	28
1380	Alexandria.	do.	do.	165	1.57	4.4	9.2	14.5	7	29
1381	Frankton.	do.	do.	165	1.41	5.8	6.9	14.5	8	53
1714	Ingalls.	do.	do.	168	.41	4.5	8.9	17.0	4	39
1715	do.	do.	do.	168	.41	4.5	8.9	17.0	4	39
8752	Anderson.	do.	do.	162	2.00	3.2	12.4	14.9	9	67
1459	Sholas (near).	Martin.	do.	175	.73	5.6	7.1	14.2	14	(1)
994	Peru.	Miami.	Dolomite.	162	2.16	3.5	11.5	15.8	12	74
1463	Bloomington.	Monroe.	Limestone.	162	4.44	10.8	3.7	0	6	63
1464	do.	do.	do.	150	4.44	10.8	3.7	0	4	49
1465	do.	do.	do.	165	3.32	10.6	3.8	3.9	6	62
1466	do.	do.	do.	165	.97	5.3	7.5	9.7	7	7
1467	do.	do.	Dolomite limestone.	165	1.70	3.0	13.4	15.2	13	41
8181	do.	do.	Limestone.	168	.49	4.9	8.1	15.2	5	29
9550	Victor.	do.	do.	162	1.98	9.9	4.1	11.8	5	43
1386	Waveland.	Montgomery.	do.	160	1.85	3.9	12.2	8.7	5	33
1348	Kendall (near).	Newton.	do.	168	.83	4.1	10.7	16.4	12	35
8761	do.	do.	do.	168	.83	3.8	10.5	14.8	5	66
6454	Petersburg.	Pike.	Carbonaceous limestone.	168	.64	2.7	15.0	17.2	20	86
2982	do.	do.	Siliceous limestone.	175	1.43	4.4	9.0	18.8	6	69
2980	do.	do.	Sandstone, ferruginous.	165	2.23	39.0	1.7	0	2	124
2981	do.	do.	Feldspathic sandstone.	150	3.89	10.7	1.7	0	2	124
2981	do.	do.	Calcareous shale.	147	6.23	4.9	8.1	.2	9	71

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

IOWA.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
462	Raymond.	Black Hawk.	Dolomite.	Pounds.	Pounds.	4.5	8.9	(1)	(1)	161
8912	Mason.	Cerro Gorda.	Limestone.	168	0.64	6.0	6.7	13.0	2	(1)
8914	do.	do.	do.	168	.62	5.7	7.1	13.0	3	(1)
8913	do.	do.	Dolomite.	175	1.53	3.8	10.5	13.7	6	(1)
455	Pesta.	Dubuque.	do.	159	3.30	11.6	3.4	(1)	(1)	32
7704	(2)	do.	Argillaceous dolomite.	171	1.59	14.6	2.7	13.6	6	42
7855	Farley (near).	do.	do.	168	4.13	11.3	3.5	5.1	4	45
7858	(2)	do.	do.	168	2.10	10.2	3.9	13.7	7	15
7859	Stone City.	do.	Dolomite.	(1)	(1)	7.6	5.2	(1)	(1)	24
7860	(2)	do.	Argillaceous dolomite.	173	.95	5.8	6.9	14.0	5	28
7854	(2)	do.	Argillaceous limestone	168	1.30	13.8	2.9	10.8	4	22
7856	(2)	do.	do.	165	3.10	12.0	6.2	12.0	5	37
7857	(2)	do.	do.	165	2.60	6.5	(1)	5.2	3	36
8922	Dubuque.	do.	do.	172	1.57	4.7	8.6	13.7	9	32
5972	Balanger.	Lee.	Limestone.	162	2.17	5.5	7.3	9.2	4	24
5525	Cedar Rapids.	Linn.	Dolomitic limestone.	172	1.34	6.7	6.0	16.8	11	30
6102	do.	do.	Dolomite.	156	3.81	14.9	2.7	(1)	3	17
6103	do.	do.	Limestone.	168	1.64	4.6	8.8	10.0	8	18
5973	Peru.	Madison.	do.	165	1.55	4.6	8.7	15.6	8	29
5526	La Grande.	Marshall.	do.	165	2.14	4.6	8.7	15.3	6	56
7121	Buffalo.	Muscatine.	do.	165	2.50	5.1	7.9	(1)	3	45
383	Butterville.	Tama.	Argillaceous limestone.	162	3.23	21.9	1.8	(1)	(1)	(1)
384	Montour.	do.	Dolomitic limestone.	162	1.65	6.7	5.9	(1)	(1)	(1)

KANSAS.

1109	Arkansas City.	Cowley.	Limestone.	150	4.07	14.9	2.7	0.0	3	56
1111	do.	do.	do.	153	5.18	(1)	(1)	3.1	3	29
5248	Moline.	Elkford.	do.	159	1.62	7.2	5.6	10.8	5	23
1705	Oswego.	Labette.	do.	168	0.73	9.2	4.3	13.3	6	40
4127	Leavenworth.	do.	Quartzite.	165	0.33	2.2	18.2	19.3	25	18
4186	Fort Leavenworth.	do.	Argillaceous limestone.	162	2.38	4.6	8.7	15.1	7	37
4187	do.	do.	Limestone.	165	1.20	4.0	10.0	15.6	11	29
2689	Blue Rapids Township.	Marshall.	do.	156	3.22	9.0	6.4	9.0	3	31
2690	do.	do.	do.	150	5.65	9.6	4.2	15.0	3	34
2691	Stockdale.	do.	do.	150	4.2	8.6	4.6	11.7	3	35
9267	Fredonia.	Wilson.	Argillaceous dolomite.	163	1.01	9.0	4.6	12.8	4	12

KENTUCKY.

5748	Glasgow	Barren	168	0.59	3.8	10.4	13.0	5	103
1993	Cadetsburg	Boyd	156	1.77	6.2	6.5	13.2	7	8
461	Cedar Bluff	Caldwell	137	3.16	4.5	8.9	(1)	(1)	80
5552	Princeton	do.	168	1.88	5.1	7.9	14.1	12	10
6575	Cedar Bluff	do.	168	1.11	4.3	9.4	16.1	10	43
7688	do.	do.	168	.51	4.7	8.5	15.3	9	32
1631-1	Limestone	do.	165	1.25	(1)	(1)	14.3	1.25	71
1631-2	do.	do.	165	1.08	(1)	(1)	12.1	6	56
1631-3	do.	do.	165	.20	(1)	(1)	18.2	14	55
5921	do.	do.	165	.75	4.2	9.6	14.6	(1)	26
5922	Cartersville	Fayette	168	.59	3.3	12.2	(1)	7	27
446	Lexington	do.	168	.76	6.2	6.4	(1)	(1)	58
447	do.	do.	162	3.54	7.4	5.4	(1)	(1)	56
2452	Emmence	Henry	165	.93	6.1	6.5	(1)	(1)	34
5635	Norton	do.	165	.88	7.0	5.7	(1)	(1)	39
6134	Louisville	Hopkins	178	.98	9.6	4.2	17.6	10	31
6135	Tucker Station	Jefferson	172	.17	3.7	10.9	13.9	9	48
8334	do.	do.	172	1.59	3.4	11.7	15.7	11	26
8335	Tucker	do.	168	1.63	5.2	7.7	14.8	9	33
8336	Louisville	do.	165	1.87	5.1	7.8	16.2	11	32
8337	do.	do.	165	3.80	5.0	8.0	8.3	6	18
8338	do.	do.	168	.88	4.7	8.5	13.5	7	24
8339	Seatonville	do.	168	1.08	4.1	9.8	15.2	7	34
1654	Paintsville	Johnson	168	1.21	5.3	7.5	13.2	7	15
8047	(C)	do.	165	1.56	2.1	18.7	16.7	10	51
457	Kuttawa	Logan	168	.64	7.7	5.2	14.5	6	16
4919	Berea	Lyon	170	8.20	17.8	2.2	(1)	(1)	55
4983	do.	Madison	175	.73	5.7	7.0	15.8	10	55
7180	Mount Sterling	Montgomery	165	.81	3.9	10.2	16.3	8	35
7181	do.	do.	168	.81	8.6	6.0	11.9	6	52
7182	do.	do.	168	.61	8.0	5.0	13.8	8	51
7183	do.	do.	165	1.24	3.0	8.0	14.2	11	68
7189	do.	do.	165	.85	(1)	(1)	10.0	4	35
7292	do.	do.	168	.78	4.2	9.6	13.0	9	28
7293	do.	do.	165	.90	3.6	11.0	13.3	9	77
7545	Mount Sterling (6 miles south of)	Fossiferous limestone	168	.61	7.0	5.8	13.3	3	31
7546	do.	Argillaceous limestone	165	1.26	3.9	10.4	13.0	6	69
7190	do.	do.	168	1.03	6.3	6.4	8.5	9	70
1225	Narrows	do.	165	1.38	4.3	9.3	12.4	10	107
3163	Cerulean (1½ miles from)	Trigg	168	.42	3.7	10.8	15.0	10	7
			168	.65	4.4	9.1	15.5	5	31

¹ Test not made.² Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

LOUISIANA.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Commenting value.
7095	(1)	Bossier Parish.	Limonite ore.	Pounds. 299	Pounds. 4.24	18.2	2.2	(2)	(2)	75
5334A	Shreveport.	Caddo Parish.	Ferruginous sandstone.	139	3.31	13.8	2.9	4.8	4	49
5334B	.....	do.	.....	108	3.16	19.6	2.0	13.8	8	36
4316	Near De Lode Bluffs.	Rapides Parish.	Quartzite.	147	1.53	3.9	10.5	13.3	8	25
6664	Many.	Sabine Parish.	Siliceous Limestone.	163	2.20	4.7	8.6	12.1	10	369
7024	Kentwood.	Tangipahoa Parish.	Ferruginous limestone.	133	3.65	30.3	1.3	14.7	2	76
3736	Winfield.	Winn Parish.	Marble.	168	.28	7.2	5.6	10.7	5	38

MAINE.

6467	Rumford Junction.	Androscoggin.	Biotite gneiss.	168	0.45	5.7	7.0	17.8	7	82
6469	(1)	do.	do.	172	.49	5.4	7.4	(2)	(2)	41
2233	Standish.	Cumberland.	Biotite schist.	172	.39	4.0	10.0	10.8	7	26
5766	Westbrook.	do.	do.	172	.22	4.3	9.3	17.0	7	75
2235	Portland.	do.	do.	172	.27	2.6	15.4	17.7	14	48
7572	Freepoint.	do.	Quartzite schist.	168	.32	6.0	6.7	18.1	17	36
7612	Portland.	do.	Micaceous quartzite.	172	.27	2.5	16.0	18.4	10	29
2310	Harpswell Center (1 mile south of).	do.	Amphibolite quartzite.	187	.79	2.1	18.9	16.6	30	82
7552	Portland.	do.	Altered diabase.	184	.03	3.4	11.6	16.8	25	52
6990	Yarmouth.	do.	Diabase.	187	.27	3.0	13.3	19.0	24	58
7577	Falmouth.	do.	Altered diabase.	184	.45	2.5	15.7	18.8	18	40
7649	Cumberland.	do.	Gneiss.	165	.65	(2)	(2)	17.8	12	25
2958	Rocky Hill.	do.	Granite gneiss.	165	.36	3.5	11.5	18.7	11	13
3433	Portland.	do.	Gneiss.	165	.63	3.5	11.5	17.3	12	48
4411	Portland.	do.	Biotite gneiss.	172	.17	4.0	10.1	18.7	10	40
5587	Yarmouth.	do.	do.	168	.64	6.2	6.5	17.7	7	22
7573	Freepoint.	do.	do.	172	.31	6.9	5.8	18.0	7	20
7574	Brunswick.	do.	do.	172	.93	10.7	3.7	16.2	5	27
8031	Cumberland.	do.	Granite.	162	.41	4.9	8.1	18.9	7	5
7566	Falmouth.	do.	Biotite granite.	172	.29	3.1	12.9	17.9	14	24
7567	.....	do.	Granite.	162	.42	4.2	9.3	18.7	9	13
7568	.....	do.	Biotite granite.	168	.37	3.8	10.5	17.8	10	12
7569	Cumberland.	do.	Granite.	165	.31	3.4	11.8	18.6	14	16
7570	Freepoint.	do.	do.	162	.29	4.5	8.9	18.8	8	21
7571	.....	do.	do.	162	.29	4.5	8.9	18.8	8	21

Yarmouth.	do.	do.	do.	165	.56	6.3	6.4	18.8
Brunswick.	do.	Altered granite.	do.	162	.47	7.0	3.1	18.1
do.	do.	Granite.	do.	162	.45	3.9	10.3	18.7
do.	do.	do.	do.	165	.33	3.4	11.8	19.0
Yarmouth.	do.	Basalt.	do.	184	.22	3.0	13.3	18.1
Portland.	do.	do.	do.	165	.39	2.3	17.4	(⁴)
North Jay.	Franklin.	Granite.	do.	175	.77	3.3	12.2	18.1
South Brooksville.	Hancock.	Altered rhyolite.	do.	184	.22	2.1	19.4	16.5
do.	do.	Altered andesite.	do.	162	.45	5.0	8.0	18.8
Swans Island.	do.	Biotite granite.	do.	159	1.72	3.1	12.7	18.7
Hallowell.	Kennebec.	Granite.	do.	168	.30	5.0	8.1	19.1
Augusta.	do.	Biotite granite.	do.	165	.40	10.0	4.0	18.4
do.	do.	Limestone.	do.	(²)	(²)	4.9	8.3	(²)
Rockport.	Knox.	do.	do.	(²)	(²)	4.5	9.5	(²)
do.	do.	Dolomite limestone.	do.	178	.19	5.4	7.0	13.2
Rockport.	do.	Quartzite.	do.	(²)	(²)	2.7	14.6	(²)
do.	do.	Hornblende quartzite.	do.	175	.12	2.6	15.2	(²)
Rockland (2 miles southwest of).	do.	Feldspathic quartzite.	do.	165	.54	2.6	15.2	18.8
Canden.	do.	do.	do.	168	.16	2.7	14.7	18.8
Rockport.	do.	Biotite schist.	do.	(²)	(²)	4.2	9.6	(²)
do.	do.	Marble.	do.	168	.36	5.6	7.1	10.5
Rockland.	do.	Altered andesite.	do.	184	.41	2.7	15.0	17.6
North Haven Island.	do.	Rhyolite.	do.	168	.50	3.2	12.6	18.0
North Haven.	do.	Olivine diabase.	do.	187	.33	2.3	17.4	18.2
Vinal Haven.	do.	Hornblende gabbro.	do.	187	.28	2.8	14.3	17.8
Long Cove.	do.	Biotite granite.	do.	165	.45	2.2	18.5	18.7
do.	do.	Granite.	do.	165	.47	3.4	11.9	19.3
Vinal Haven.	do.	do.	do.	165	2.29	2.8	14.5	19.3
Long Cove.	do.	Biotite granite.	do.	165	.39	2.9	13.9	18.8
Vinal Haven.	do.	do.	do.	165	.29	3.1	12.9	19.0
do.	do.	Biotite granite.	do.	181	.15	3.6	11.1	17.7
Portland.	do.	do.	do.	178	.37	4.1	9.9	18.8
Sagadahoc.	do.	Altered diabase.	do.	178	.43	10.7	3.7	(⁴)
Woolwich.	Topsham.	Gneissoid granite.	do.	165	.27	5.2	7.7	19.7
do.	do.	Pegmatite.	do.	165	.27	5.2	7.7	19.7
Frankford.	Waldo.	Biotite granite.	do.	181	.22	2.8	14.5	16.9
Machias (2 miles east of).	Washington.	Altered diabase.	do.	178	.67	2.0	20.0	18.2
Eastport.	do.	do.	do.	181	.50	1.6	24.7	17.9
Blackhead (8 miles south of).	do.	Diabase.	do.	184	.35	2.9	13.6	(⁴)
Machias.	do.	Altered diabase.	do.	187	.04	2.3	17.4	18.5
Ongouquit.	York.	Diabase porphyry.	do.	184	.53	2.6	15.4	16.2
Hills beach.	do.	Gabbroitic diabase.	do.	187	.42	1.8	20.4	17.5
Wells beach.	do.	Diabase.	do.	187	.42	2.3	17.5	18.8
Kennebunk.	do.	Quartzite schist.	do.	172	.49	3.2	12.4	17.8
Kittery.	do.	Gabbro.	do.	178	1.03	3.2	17.5	16.5
do.	do.	Quartzite.	do.	175	.27	2.5	15.7	18.5
Saco.	Kittery.	Calcareous sandstone.	do.	175	.21	3.4	11.6	18.0
Sanford.	do.	Hyperssthene granite.	do.	181	.35	4.1	9.7	17.7

^a Test not made.

Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

MARYLAND.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
4954	Cumberland.....	Allegheny	Limestone.....	Pounds.....	Pounds.....	4.0	10.0	16.5	12	37
5611	Mount Savage Junction.....	do.	Siliceous limestone.....	168	0.15	3.0	13.3	17.5	23	52
427	Cumberland.....	do.	Sandstone.....	123	.13	8.2	4.9	(1)	(1)	38
428	do.....	do.	Calcareous shale.....	163	9.43	16.2	2.5	(1)	(1)	(1)
430	do.....	do.	Siltstone.....	168	1.90	13.4	3.0	(1)	(1)	(1)
1328	Sparks Station.....	Baltimore.	Silt rock.....	178	.25	4.0	10.0	17.7	11	18
1339	do.....	do.	Biottite gneiss.....	165	.32	2.9	18.2	16.3	16	52
2206	Ruxton.....	do.	Granite gneiss.....	175	.45	2.2	18.5	(1)	12	52
873	Powhatan.....	do.	Diabase.....	(1)	(1)	2.2	11.2	18.3	23	7
1613	do.....	do.	Augite diorite.....	196	.31	3.6	11.2	18.3	23	52
5976	do.....	do.	do.....	190	.19	2.4	16.5	17.8	10	15
2544	Loreley.....	do.	Hornblende schist.....	196	.27	1.9	21.5	17.3	13	10
2992	do.....	do.	do.....	190	.38	3.6	11.2	18.1	16	19
3062	Big Gun Powder.....	do.	Dolomitic marble.....	178	.20	6.3	6.3	11.0	5	15
6867	Texas.....	do.	Siliceous marble.....	168	.26	27.0	1.5	7.5	3	69
6868	do.....	do.	do.....	178	.19	18.8	2.1	4.5	2	18
6869	do.....	do.	do.....	172	.06	10.5	3.8	12.3	3	44
3187	Whitehall (near).....	do.	Altered peridotite.....	165	.73	3.0	13.2	15.0	12	91
4104	Granite.....	do.	Granite.....	168	.46	2.4	16.9	18.5	10	16
4105	Woodstock.....	do.	do.....	165	.32	4.5	8.9	18.7	10	13
8351	Granite.....	do.	do.....	168	.33	3.0	13.3	18.7	9	14
5318	Ashland.....	do.	Biottite granite.....	178	.56	4.0	10.0	(1)	(1)	22
830	Groves Quarry.....	do.	Blast-furnace slag.....	172	.09	2.6	15.6	18.7	10	31
3459	Port Deposit.....	Caroline.	Siliceous limestone.....	168	.17	2.0	20.2	18.9	13	13
6671	do.....	Cecil.	Granite gneiss.....	178	.30	2.0	20.4	18.9	24	43
8420	do.....	do.	Quartzite.....	171	.26	2.2	18.2	19.2	9	29
343	do.....	do.	Hornblende schist.....	175	.25	4.5	8.9	(1)	(1)	(1)
5688	Frederick.....	do.	Dolomite.....	175	.20	3.1	12.8	16.3	15	46
439	do.....	do.	do.....	162	.19	1.9	6.8	(1)	(1)	(1)
1314	Frederick (near).....	do.	Argillaceous limestone.....	172	.19	2.8	14.1	14.6	12	60
487	Frederick.....	do.	Limestone.....	168	.13	6.0	10.2	(1)	(1)	(1)
2473	Washington Junction.....	do.	do.....	175	.21	3.9	6.6	(1)	(1)	(1)
3830	Frederick.....	do.	do.....	168	.33	3.3	12.1	(1)	(1)	(1)
4884	do.....	do.	do.....	175	.08	4.1	9.9	10.7	16	10
2474	Washington Junction.....	do.	Diabase.....	187	.40	1.1	36.4	18.8	21	17
2227	do.....	do.	Limestone.....	188	.43	3.7	10.9	15.3	4	96
3134	Bloomington.....	Garrett.	Feldspathic sandstone.....	162	.74	3.7	10.8	18.8	9	9
2761	Sue Quarry.....	do.	Calcareous sandstone.....	165	.62	2.8	14.3	15.8	11	58
7291	Conowingo.....	Cecil.	Hyperssthene diabase.....	187	.49	2.6	15.3	18.4	8	41

2608	(2)	Harford.	Hornblende schist.	184	55	3.3	12.0	17.8	19	35
2991	do.	do.	do.	181	17	2.0	18.4	18.4	17	7
3409	do.	do.	Quartz hornblende schist.	172	38	2.2	18.0	18.6	19	23
3443	do.	do.	Hornblende schist.	181	31	3.1	12.8	17.3	30	31
4212	do.	do.	do.	184	61	3.3	12.2	18.7	31	19
4418	do.	do.	Schist.	175	11	2.9	14.0	18.2	44	15
5623	do.	do.	Quartz hornblende schist.	172	38	2.7	14.8	(1)	(1)	5
3407	do.	do.	Diorite.	181	58	2.1	19.4	18.9	27	8
3442	do.	do.	Basic diorite.	193	35	2.5	16.3	18.5	23	8
3408	do.	do.	Gneissoid granite.	165	26	4.2	9.5	18.5	27	8
2293	do.	do.	Altered granite.	168	27	2.3	20.0	18.6	12	12
5694	do.	do.	Gneissoid granite.	168	48	1.7	17.1	17.8	75	75
5696	do.	do.	do.	168	48	1.7	23.5	18.8	17	14
5698	do.	do.	do.	168	29	2.0	19.6	18.6	10	26
5699	do.	do.	do.	168	22	2.2	18.5	18.3	16	8
5699	do.	do.	do.	168	21	2.4	16.8	18.8	16	15
5699	do.	do.	do.	168	25	3.0	13.4	18.6	10	10
5699	do.	do.	Granite gneiss.	168	10	3.2	12.3	18.8	12	23
4211	do.	do.	do.	190	14	3.5	11.6	(1)	(1)	9
4073	Coel.	do.	Hornblende gneiss.	184	14	1.4	29.0	18.8	32	9
5294	Harford.	do.	do.	168	26	2.6	15.5	19.0	9	13
5695	do.	do.	Sericite gneiss.	168	26	1.5	26.0	18.7	40	36
5697	do.	do.	Amphibolite.	193	16	1.5	25.3	(1)	(1)	20
829	Savage Station.	do.	do.	190	64	2.3	17.2	18.7	16	4
8587	(2)	do.	do.	193	21	4.5	8.9	17.5	4	34
8642	do.	do.	Biotite gneiss.	(1)	20	1.8	22.6	18.4	26	11
1319	do.	do.	Hornblende schist.	193	15	3.0	13.2	18.8	37	8
4168	Savage Station (1/2 mile north of).	do.	do.	190	24	2.8	14.2	(1)	(1)	10
1329	do.	do.	Granite.	165	31	2.8	14.2	(1)	(1)	25
4132	Gilford.	do.	Diabase.	187	14	2.8	18.4	(1)	(1)	32
303	Dickerson.	do.	do.	187	56	2.2	22.5	(1)	(1)	27
3336	do.	do.	do.	181	51	1.8	20.2	18.5	25	17
1626	do.	do.	do.	187	39	2.0	20.1	18.5	24	11
2494	do.	do.	do.	190	36	1.9	21.3	18.5	46	63
2900	do.	do.	do.	190	11	1.9	21.7	18.0	7	7
Point of Rocks.	do.	do.	Altered diabase.	187	49	1.8	20.6	19.2	28	102
35348	Germanstown.	do.	Diabase.	187	45	1.9	20.6	19.2	28	18
5722	Dickerson.	do.	do.	187	15	2.3	17.2	18.3	22	20
7316	do.	do.	do.	187	15	2.3	17.2	18.7	9	19
8583	do.	do.	Gabbro.	193	11	5.8	6.9	17.3	9	20
1157	(2)	do.	Dolomite.	168	11	3.2	12.4	16.4	10	19
8584	(2)	do.	Muscovite granite.	168	71	2.8	14.3	18.7	9	19
2011	do.	do.	Granite.	168	29	3.6	11.1	19.0	7	18
8298	Glen Echo (near).	do.	Weathered granite.	168	89	2.8	14.2	18.6	21	45
8290	do.	do.	Hornblende serpentine.	165	50	3.2	12.5	18.3	16	10
2359	Laytonsville.	do.	Serpentine.	165	44	3.8	10.5	18.6	14	7
3405	Washington Grove.	do.	do.	165	44	3.8	10.5	18.6	16	10
3837	Gathersburg.	do.	do.	165	44	3.8	10.5	18.6	14	7
4935	Rockville.	do.	do.	165	44	3.8	10.5	18.6	16	10
2360	Washington.	do.	do.	165	44	3.8	10.5	18.6	14	7
5290	Washington Grove.	do.	do.	168	16	2.5	16.0	18.4	17	15
5290	Derwood.	do.	Talc schist.	165	61	8.2	4.9	9	3	28
5290	do.	do.	Mica schist.	175	28	3.3	12.2	17.3	14	18
5290	do.	do.	Quartz mica schist.	172	32	3.1	13.0	17.8	17	23

Test not made.

Exact locality not known.

TABLE V.—*Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.*

MARYLAND—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
				Pounds.	Pounds.					
5529	Seneca.....	Montgomery.	Mica schist.....	168	1.67	12.2	3.3	(1)	(1)	76
2454	Washington Grove.....	do.	Quartz.....	165	.08	14.9	2.7	(1)	(1)	2
5723	Germanstown.....	do.	do.....	165	.05	7.3	5.5	(1)	(1)	0
6953	Rockville (near).....	do.	do.....	165	.90	10.9	3.7	(1)	(1)	1
2844	Seneca.....	do.	Sandstone.....	168	1.03	4.8	8.4	11.8	11	27
2845	do.....	do.	Ferruginous sandstone.....	168	1.83	(1)	(1)	15.8	6	150
8136	Seneca (near).....	do.	do.....	156	.13	4.8	8.3	15.5	5	111
8137	do.....	do.	Feldspathic sandstone.....	159	.30	3.1	12.7	16.3	7	36
3389	do.....	do.	Granite gneiss.....	178	.37	(1)	(1)	17.7	7	34
(2)	do.....	do.	do.....	175	.23	(1)	(1)	17.7	7	21
(2)	do.....	do.	Sericite gneiss.....	175	1.02	(1)	(1)	14.9	6	31
(2)	do.....	do.	Gneiss.....	168	.34	4.2	9.5	17.8	13	15
3809	do.....	do.	do.....	178	.19	6.3	6.4	17.8	8	20
3820	do.....	do.	Quartz gneiss.....	178	.18	3.6	11.1	17.3	7	13
3821	Derwood.....	do.	Diorite gneiss.....	187	.28	5.7	7.0	17.6	7	24
3870	Clopper.....	do.	Altered gneiss.....	190	.38	5.5	7.2	16.8	12	19
4908	do.....	do.	Sericite gneiss.....	181	.25	6.1	6.5	17.6	7	17
5625	Rockville.....	do.	Chloritic gneiss.....	175	.16	7.0	5.7	16.6	7	5
6957	Potomac.....	do.	Chlorite sericite gneiss.....	168	.50	(1)	(1)	18.7	4	30
8622	Gaithersburg.....	do.	Feldspathic quartzite.....	172	.04	5.7	7.0	18.1	15	18
6009	do.....	do.	Hornblende schist.....	190	.26	1.3	31.7	18.3	20	15
3217	Laurel.....	Prince George.	Dolomitic marble.....	(1)	(1)	3.9	10.6	(1)	(1)	(1)
7921	Easton.....	Talbot.	Hornblende granite gneiss.....	168	.22	2.7	14.9	18.8	7	13
8092	do.....	do.	Ferruginous sandstone.....	172	.62	2.7	14.7	18.2	7	26
7505	Hancock.....	Washington.	Limestone.....	168	.18	5.2	7.7	16.7	13	29
5826	Hagerstown.....	do.	do.....	168	.68	5.7	7.0	16.7	6	35
8445	Security.....	do.	do.....	168	.43	6.0	6.7	15.9	4	45
8446	do.....	do.	do.....	168						

MASSACHUSETTS.

				Pounds.	Pounds.					
10	Lenox.....	Berkshire.	Mica schist.....	178	(1)	5.0	8.0	(1)	(1)	(1)
41	Lee.....	do.	Schist.....	(1)	(1)	3.3	12.2	(1)	(1)	(1)
69	Pittsfield.....	do.	Mica schist.....	172	(1)	4.1	9.8	(1)	8	44
2928	Lenox.....	do.	Sericite schist.....	187	0.19	4.1	9.8	16.8	(1)	(1)
47	Great Barrington.....	do.	Limestone.....	(1)	(1)	4.2	9.5	(1)	(1)	(1)
102	Pittsfield.....	do.	do.....	175	(1)	4.3	9.4	(1)	(1)	(1)

298	North Adams.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.</
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TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

MASSACHUSETTS—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
329	Merrimac.	Essex.	Diabase.	Pounds. (1) 184	Pounds. (1) .57	3.1 (1)	12.9 (1)	(1) 17.9	(1) 24	(1) 500
1100	Lawrence.	do.	do.	181	.32	2.0	20.4	17.6	21	43
5825	Cliftondale.	do.	Altered diabase.	165		2.7	14.7	(1)	(1)	(1)
24	Lynn.	do.	Felsite.	165		3.3	12.3	(1)	(1)	(1)
27	do.	do.	do.	165		3.3	12.3	(1)	(1)	(1)
97	Rowley.	do.	do.	165		3.6	11.0	(1)	(1)	(1)
30	Gloucester.	do.	Hornblende granite.	165		3.2	12.6	(1)	(1)	(1)
2297	do.	do.	Augite syenite.	172	.28	3.1	12.7	17.8	14	62
2297	Swampscott.	do.	do.	190	.23	2.2	12.7	17.3	8	375
2648	Salem.	do.	Altered syenite.	187		2.4	16.8	(1)	(1)	(1)
33	Salisbury.	do.	Campionite.	175		2.3	17.2	(1)	(1)	(1)
65	Lawrence.	do.	Siliceous limestone.	172		2.1	19.0	(1)	(1)	(1)
222	do.	do.	Limestone.	(1)		2.9	14.0	(1)	(1)	(1)
181	Methuen.	do.	Quartzite.	(1)		2.1	18.7	(1)	(1)	(1)
226	do.	do.	do.	(1)		(1)	(1)	(1)	(1)	(1)
1192	Lawrence.	do.	Granite gneiss.	165	.38	2.9	13.7	19.0	12	14
1375	Peabody.	do.	Altered gabbro.	184	.23	3.2	12.3	18.4	17	28
3543	Haverhill.	do.	Altered mica schist.	172	.51	4.1	9.8	(1)	(1)	(1)
39	Orange.	Franklin.	Hornblende granite.	(1)		5.0	7.9	(1)	(1)	(1)
50	Buckland.	do.	Hornblende gneiss.	(1)		3.4	11.7	(1)	(1)	(1)
52	do.	do.	do.	(1)		3.9	10.3	(1)	(1)	(1)
211	Orange.	do.	do.	(1)		1.4	28.6	(1)	(1)	(1)
76	Deerfield.	do.	Diabase.	(1)		1.4	28.8	(1)	(1)	(1)
268	do.	do.	do.	(1)		1.6	24.7	17.8	28	200
5671	Westfield.	Hamden.	Altered diabase.	187	.62	2.6	15.6	(1)	(1)	(1)
12	West Springfield.	do.	Olivine diabase.	184		2.0	19.7	(1)	(1)	(1)
66	Holy Oak.	do.	Diabase.	184		1.8	22.1	(1)	(1)	(1)
67	West Springfield.	do.	do.	(1)		1.8	22.1	(1)	(1)	(1)
68	Monson.	do.	do.	187		1.6	25.0	(1)	(1)	(1)
91	West Springfield.	do.	Olivine diabase.	(1)		1.9	21.6	(1)	(1)	(1)
93	do.	do.	Diabase.	(1)	.50	1.3	30.7	(1)	(1)	(1)
517	Westfield.	do.	do.	187		3.3	12.2	(1)	(1)	(1)
44	Chester.	do.	Schist.	(1)	.98	5.4	7.4	18.2	21	28
2423	Springfield.	do.	Dolomite.	175		3.7	10.7	(1)	(1)	(1)
8	do.	do.	Hornblende granite.	172		3.1	12.8	(1)	(1)	(1)
6572	North Hampton.	Hampshire.	Altered biotite granite.	172	.24	3.1	23.3	18.3	11	24
64	Ware.	do.	Diabase.	187		1.7	20.3	(1)	(1)	(1)
78	Anherst.	do.	do.	(1)		2.0	(1)	(1)	(1)	(1)
2	Everett.	Middlesex.	Olivine diabase.	175		2.9	13.9	(1)	(1)	(1)

No.	Locality.	Diabase.	178	4.3	9.3	(1)	11	53
19	Somerville.	do.	178	4.3	9.3	(1)		
20	Medford.	do.	190	2.5	13.8	(1)		
66	W. Medford.	do.	(1)	2.5	13.7	(1)		
270	Walden.	do.	(1)	2.1	18.9	(1)		
318	Waltham.	do.	(1)	2.5	16.0	(1)		
388	Witchester.	do.	(1)	6.5	6.4	(1)		
700	do.	Altered diabase.	200	3.7	10.4	(1)		
8493	Winchester Highlands.	Meta diabase.	187	1.9	21.1	(1)	18.0	
4	Walden.	Altered diabase.	187	3.3	12.2	(1)		
4	Walden.	Hornblende granite.	162	4.8	8.4	(1)		
125	Asby.	Granite.	(1)	2.8	14.1	(1)		
125	Malden.	Hornblende granite.	165	2.4	16.5	(1)	18.6	
2810	Dunstable.	Granite.	165	2.3	17.2	(1)		
8874	Westford.	do.	165	2.9	13.6	(1)		
8875	do.	do.	162	2.5	16.0	(1)		
8882	do.	do.	165	1.9	20.8	(1)		
6	Newton.	Trachyte.	175	4.7	8.5	(1)		
103	Somerville.	Slate.	172	3.8	10.5	(1)		
5744	do.	do.	175	6.6	6.1	(1)		
118	Asby.	Granite gneiss.	(1)	4.5	8.9	(1)		
3539	Dracut.	Biotite hornblende gneiss.	178	3.9	10.2	(1)		
304	Winchester.	Diorite.	(1)	2.1	19.4	(1)		
17199	Marlborough.	Hornblende schist.	187	2.0	20.4	(1)		
5355	Pepperell.	Calcareous sandstone.	172	3.3	17.7	(1)		
6957	Malden.	Altered rhyolite.	168	1.7	21.1	(1)		
7	Brookline.	Diabase.	178	3.5	11.4	(1)		
18	Quincy.	do.	184	2.6	15.2	(1)		
23	Brookline.	do.	187	2.7	14.7	(1)		
219	Milton.	Diabase.	(1)	1.8	22.8	(1)		
230	Quincy.	Olivine diabase.	(1)	1.6	25.6	(1)		
369	Brookline.	do.	(1)	2.1	18.9	(1)		
843	Soughton.	Altered diabase.	181	0.19	23.5	(1)		
1044	Quincy.	Diabase.	187	-07	17	(1)		
9509	Dover.	do.	193	-08	18.3	(1)		
7090	Needham.	Altered felsite.	178	4.2	18.7	(1)		
17	Quincy.	do.	181	1.12	10.7	(1)		
3793	Weymouth.	Hornblende granite.	165	3.9	10.2	(1)		
72	Quincy.	Altered granite.	165	1.6	25.0	(1)		
92	North Weymouth.	Felsite.	(1)	2.0	19.9	(1)		
196	Milton.	do.	(1)	1.6	25.7	(1)		
299	Quincy.	Sandstone.	(1)	1.7	24.0	(1)		
218	Milton.	do.	(1)	1.9	21.0	(1)		
367	Brookline.	do.	(1)	4.7	8.5	(1)		
368	do.	Syenite porphyry.	175	1.8	22.9	(1)		
718	Quincy.	Slate.	178	1.9	18.4	(1)		
2475	Franklin.	Rhyolite.	181	5.1	7.9	(1)		
8856	Hyde Park.	Chlorite schist.	168	8.3	5.7	(1)		
8616	North Soughton.	Sericite gneiss.	168	3.9	10.2	(1)		
5	Duxbury.	Altered rhyolite breccia.	187	3.1	19.0	(1)		
220	Hingham.	Altered diorite.	168	0.8	19.2	(1)		
220	Hingham.	Gneiss.	(1)	2.9	13.5	(1)		
220	Hingham.	Diabase.	(1)	3.0	13.8	(1)		

1 Test not made.

² Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

MASSACHUSETTS—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
1863	Hingham.....	Plymouth.....	Altered diabase.....	Pounds. 190	Pounds. .17	1.8	22.2	18.0	25	67
1887	do.....	do.....	do.....	175	.36	2.2	18.3	18.0	19	43
3	Revere.....	Suffolk.....	Felsite.....	165	(1)	3.0	13.2	(1)	(1)	(1)
40	Boston.....	do.....	do.....	(1)	(1)	2.5	16.1	(1)	(1)	(1)
124	Revere.....	do.....	do.....	(1)	(1)	2.6	15.2	(1)	(1)	(1)
1572	Everett.....	do.....	Augite diorite.....	175	.95	(1)	(1)	18.6	22	21
1573	do.....	do.....	do.....	172	.91	(1)	(1)	17.7	23	27
1574	do.....	do.....	Altered rhyolite.....	165	3.44	2.9	13.8	19.6	8	25
7506	Revere.....	do.....	Hornblende granite.....	187	(1)	3.2	12.6	(1)	(1)	(1)
63	Uxbridge.....	Worcester.....	Gneissoid granite.....	(1)	(1)	4.8	8.3	(1)	(1)	(1)
242	Clinton.....	do.....	Granite.....	(1)	(1)	2.2	17.9	(1)	(1)	(1)
256	Fitchburg.....	do.....	do.....	(1)	(1)	4.6	8.6	(1)	(1)	(1)
266	Worcester.....	do.....	do.....	(1)	(1)	4.6	8.7	(1)	(1)	(1)
279	Clinton.....	do.....	do.....	(1)	(1)	4.2	9.5	(1)	(1)	(1)
295	Fitchburg.....	do.....	do.....	(1)	(1)	4.4	9.1	17.2	(1)	28
7522	do.....	do.....	do.....	168	.28	4.3	9.3	17.7	5	28
7521	do.....	do.....	do.....	165	.31	3.2	12.7	17.7	6	24
7523	do.....	do.....	do.....	165	.34	3.2	12.7	17.7	6	24
8394	Worcester.....	do.....	do.....	162	.72	5.6	7.1	19.0	5	61
83	Sterling.....	do.....	Diabase.....	(1)	(1)	2.1	19.3	(1)	(1)	(1)
88	Athol.....	do.....	Granite gneiss.....	(1)	(1)	3.2	12.5	(1)	(1)	(1)
203	do.....	do.....	do.....	(1)	(1)	3.2	12.5	(1)	(1)	(1)
243	do.....	do.....	do.....	(1)	(1)	4.5	9.0	(1)	(1)	(1)
5378	Leominster.....	do.....	Gneiss.....	175	.36	3.6	11.0	16.4	10	40
5388	West Auburn.....	do.....	Granite gneiss.....	165	.49	3.6	13.0	18.0	13	14
7711	Grafton.....	do.....	Granite gneiss.....	165	.45	5.2	13.2	19.5	8	22
114	West Auburn.....	do.....	Limestone.....	(1)	(1)	3.3	12.0	(1)	(1)	(1)
227	Milville.....	do.....	Diorite.....	(1)	(1)	2.7	14.8	(1)	(1)	(1)
243	Clinton.....	do.....	Hornblende schist.....	(1)	(1)	4.9	4.9	(1)	(1)	(1)
244	do.....	do.....	Mica schist.....	(1)	(1)	8.2	8.2	(1)	(1)	(1)
411	Webster.....	do.....	do.....	178	.30	6.3	6.4	(1)	(1)	(1)
5401	Leominster.....	do.....	Biotite schist.....	172	.36	3.6	11.2	16.7	6	34
5379	do.....	do.....	Sericite schist.....	168	.92	3.9	10.2	17.2	8	63
247	Clinton.....	do.....	Felsite.....	(1)	(1)	2.5	16.1	(1)	(1)	(1)
265	Sterling.....	do.....	Hornblende syenite.....	(1)	(1)	2.3	17.1	(1)	(1)	(1)
5400	Leominster.....	do.....	Fieldstone.....	(1)	(1)	4.5	8.9	(1)	(1)	30

Locality	Alger	Dolomitic sandstone.	159	0.45	5.2	7.8	17.3	7
Grand Island	do	Siliceous dolomite.	168	1.88	5.7	7.1	14.7	7
Elben	do	Siliceous limestone.	159	3.92	7.2	5.6	10.2	7
Rock River Township	do	Argillaceous limestone.	168	5.6	7.1	13.8	(1)	6
Trenary	do	Limestone.	165	1.55	7.9	5.1	(1)	(1)
Alpena	do	do.	165	1.19	3.3	12.1	14.3	8
Whitney	do	do.	147	4.24	9.9	4.0	9	4
Charlevoix	do	do.	181	.47	2.7	14.6	18.2	13
Sault Ste. Marie	do	Uraline diabase.	187	.61	2.1	18.7	18.7	31
Chippewa	do	Altered diabase.	193	.11	3.7	9.8	17.3	12
do	do	Altered gabbro.	103	1.09	10.9	16.0	(1)	(1)
Delta	do	Limestone.	108	1.09	3.7	11.6	16.5	11
do	do	do.	175	.39	3.4	11.6	(1)	12
do	do	Dolomite.	209	1.44	4.3	9.4	(1)	(1)
Dickinson	do	Ferruginous slate.	196	1.09	5.2	7.8	(1)	7
do	do	do.	178	.40	4.6	8.6	17.2	8
do	do	Gneissoid granite.	165	.53	4.2	9.4	18.5	13
Iron Mountain	do	Ferruginous sandstone.	190	1.32	4.9	8.2	(1)	13
do	do	do.	203	1.69	5.7	7.0	(1)	10
do	do	Altered diorite.	184	.37	3.9	10.4	(1)	30
do	do	Amphibolite.	181	.54	3.2	12.5	(1)	28
do	do	Quartzite.	162	.61	3.5	11.6	(1)	29
do	do	Hornblende schist.	190	.17	1.7	23.5	(1)	2
Eaton	do	Limestone.	159	3.08	7.5	5.3	18.6	27
do	do	do.	165	.85	4.7	8.5	11.8	4
do	do	do.	168	.54	3.2	12.3	15.3	7
Emmett	do	do.	162	1.36	4.5	8.9	16.0	11
do	do	do.	165	1.58	5.1	7.8	14.5	12
Elk Rapids	do	Argillaceous limestone.	165	1.24	5.6	7.1	6.3	7
Petoskey	do	Siliceous limestone.	159	2.34	8.3	4.8	18.8	15
do	do	Altered diabase.	181	.45	5.0	8.0	17.5	12
Gogebie	do	do.	175	1.24	3.2	12.7	16.5	13
Houghton	do	do.	181	.42	4.2	9.6	13.0	18
do	do	do.	184	2.12	2.6	15.6	(1)	183
Altered basalt.	do	do.	212	.46	6.3	6.4	18.1	118
Smelter slag.	do	do.	165	1.34	2.7	14.8	16.7	10
Limestone.	do	Dolomitic limestone.	165	1.35	(1)	15.1	15.1	8
do	do	Limestone.	165	1.60	3.3	12.0	15.3	12
do	do	Siliceous limestone.	165	1.08	4.0	10.0	15.4	11
do	do	do.	(1)	(1)	7.6	5.3	16.0	13
do	do	Altered diabase.	190	1.4	1.8	22.0	18.8	5
do	do	Limestone.	162	1.94	4.5	8.9	12.5	29
do	do	do.	165	1.84	2.9	7.2	13.3	9
do	do	do.	162	2.13	3.6	7.2	12.7	6
do	do	do.	108	3.08	8.5	4.2	8.3	5
do	do	Olivine diabase.	184	.16	3.0	13.3	18.2	107
do	do	Altered diabase.	178	.11	4.2	9.5	16.8	17
do	do	do.	178	.22	5.1	7.8	12.3	12
do	do	do.	3508					500+

* Exact locality not known.

1 Test not made.

TABLE V.—*Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916*—Contd.

MICHIGAN—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
2503	(1)	Lenawee.	Quartzite.	Pounds. 165	Pounds. .24	1.9	20.8	19.5	24	4
6476	Garfield Township.	Mackinac.	Limestone.	168	.44	4.6	8.8	15.3	5	11
7152	Negaunee.	Marquette.	Altered gabbro.	187	.11	2.9	14.0	17.8	10	120
7153	do.	do.	do.	184	.17	2.7	15.0	17.3	10	102
1133	do.	do.	Hornblende schist.	184	.14	4.7	8.5	18.0	30	194
2455	Marquette (near).	do.	do.	175	.33	4.1	9.8	16.3	20	143
3198	do.	do.	Epidoite chlorite schist.	181	.16	2.6	15.3	16.8	18	83
do.	do.	do.	Hornblende schist.	190	.40	2.5	15.7	17.8	26	26
1635	(1)	do.	Chloritized basalt.	184	.37	2.1	18.9	17.2	23	38
1636	(1)	do.	do.	184	.24	2.5	15.9	17.2	22	58
1637	(1)	do.	Ferruginous slate.	175	.51	4.8	8.3	15.2	20	17
1676	do.	do.	Slate.	175	.51	(2)	(2)	16.8	12	7
2456	do.	do.	Altered diabase.	172	1.52	5.5	7.3	18.5	19	58
2645	Marquette (near).	do.	do.	165	1.81	4.5	8.9	16.0	13	129
2648	Negaunee.	do.	do.	187	.17	3.4	11.7	16.8	12	151
2855	Marquette (near).	do.	do.	181	.17	4.0	10.1	17.4	10	41
3090	do.	do.	do.	184	.38	3.7	10.8	17.2	19	43
3630	do.	do.	do.	187	.14	1.5	26.7	18.3	33	37
2826	do.	do.	do.	184	.18	2.6	13.4	16.7	20	31
1629	Ida.	Monroe.	Quartzite.	165	.07	3.3	12.1	(2)	(2)	4
3834	do.	do.	Dolomite.	162	3.46	6.0	6.6	13.3	7	34
3835	do.	do.	do.	165	2.80	4.0	10.1	14.4	6	20
4955	Bedford.	do.	do.	165	3.28	4.5	8.8	14.8	5	24
6085	Kalamazoo.	do.	do.	165	.29	4.1	9.8	14.9	10	18
5003	Ida.	do.	Dolomite.	175	1.54	4.1	6.3	5.7	3	11
9222	Roger's City.	Presque Isle.	Calcareous sandstone.	165	.26	6.2	6.5	18.4	13	16
9593	Caliste.	do.	Limestone.	162	1.86	5.4	7.4	(2)	(2)	28
2806	Manistique.	do.	do.	165	.74	5.6	7.1	14.3	5	15
2807	do.	Schoolcraft.	do.	168	.32	4.5	8.8	15.8	6	25
2808	do.	do.	do.	172	.27	4.2	9.4	14.3	6	26
2874	do.	do.	Slag.	175	1.00	2.7	14.9	16.7	12	27
3254	Limekiln crossing.	Wayne.	Dolomite.	168	1.81	23.4	1.7	18.0	7	3
8301	Detroit.	do.	do.	162	3.77	4.8	8.3	12.6	4	14
3255	do.	do.	Limestone.	168	.87	5.4	8.2	14.8	9	18
4821	do.	do.	Blast furnace slag.	159	1.01	9.3	4.3	11.3	2	88

MINNESOTA.

9532	Mankato.....	Blue Earth.....	Argillaceous-dolomite.....	159	3.22	4.7	8.5	16.7	14	51
1010	Carlton.....	do.....	Slate.....	175	.67	6.0	6.7	11.2	5	43
2442	do.....	do.....	do.....	172	.53	2.8	14.3	12.7	10	75
3764	Monteville.....	Dodge.....	Dolomite.....	150	8.24	11.5	3.5	2.0	3	41
1170	Courtland.....	Nicollet.....	Quartzite.....	165	.39	1.6	24.5	19.0	22	42
2340	do.....	do.....	do.....	165	.15	2.1	19.2	19.7	12	13
2410	Pipestone.....	Pipestone.....	Ferruginous sandstone.....	172	.40	4.6	8.8	14.5	16	11
7954	Sandstone.....	Pine.....	do.....	156	1.40	11.6	3.3	15.2	14	4
8943	do.....	do.....	Sandstone.....	156	1.23	13.8	2.9	14.8	4	55
2426	Redwood Falls.....	Redwood.....	Granite gneiss.....	165	.28	15.2	16.8	19.0	16	17
2427	do.....	do.....	Weathered granite.....	134	(³)	(³)	(³)	(³)	19	255
1241	St. Cloud.....	do.....	Grano-diorite.....	168	.12	4.7	8.6	18.0	19	49
1807	Duluth.....	Sherburne.....	Oliving gabbro.....	172	.50	5.2	7.8	17.3	10	134
5801	do.....	do.....	Altered gabbro.....	172	.50	5.2	7.8	16.8	8	42
2809	Minnesota City.....	Winona.....	Dolomite.....	168	1.74	7.0	8.0	13.3	5	43
5524	Stockton.....	do.....	Argillaceous dolomite.....	165	2.97	7.9	3.1	5.6	5	

MISSISSIPPI.

2590	Kosciusko.....	Attala.....	Sandstone.....	162	0.90	6.3	6.3	19.2	14	5
5890	Houston.....	Chickasaw.....	Argillaceous limestone.....	150	6.28	12.2	3.3	6.7	5	49
6812	Woodland.....	do.....	Ferruginous sandstone.....	162	4.91	23.7	1.7	(²)	(²)	12
4532	Stonington.....	Jefferson.....	Sandstone, ferruginous.....	131	11.60	31.8	1.3	(²)	(²)	(²)
8240	(1).....	Lauderdale.....	Opaline sandstone.....	139	.60	14.9	2.7	18.5	5	127
8241	(1).....	do.....	Sandstone.....	153	1.91	6.2	6.5	19.3	10	9
1514	Columbus.....	Lowndes.....	Limestone.....	159	3.46	4.2	9.5	7.4	6	41
6080	do.....	do.....	Argillaceous limestone.....	162	2.40	5.3	7.6	10.0	6	22
5897	Holly Springs.....	Marshall.....	Ferruginous sandstone.....	181	1.72	28.1	1.4	13.4	3	27
6807	District No. 1.....	Neshoba.....	Argillaceous sandstone.....	119	14.00	10.1	4.0	11.0	5	304
5871	Macon.....	Noxubee.....	Limestone.....	165	1.57	4.5	8.9	13.7	10	21

MISSOURI.

1775	Kirksville.....	Adair.....	Limestone.....	165	1.25	4.9	8.1	16.5	8	31
1289	Columbia.....	Boone.....	do.....	165	.85	8.8	4.6	.0	4	69
1290	do.....	do.....	do.....	162	1.06	6.6	6.1	7.7	5	36
6375	Rochport.....	do.....	do.....	165	1.31	9.3	4.3	12.3	3	50
6376	Portland.....	Callaway.....	Argillaceous dolomite.....	153	3.78	8.7	4.6	(²)	(²)	50
4398	Cape Girardeau.....	Cape Girardeau.....	Limestone.....	168	.49	3.7	10.8	15.8	9	42
6377	Sweeney.....	Cooper.....	Argillaceous limestone.....	165	2.67	4.8	8.3	13.5	8	46
1027	Springfield.....	Greene.....	Chert.....	165	.94	5.4	7.5	(²)	(²)	106

* Test not made.

1 Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

MISSOURI—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Percent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
6472	Kansas City.....	Jackson.....	Limestone.....	Pounds. 165	Pounds. 1.82	4.8	8.3	13.4	6	45
6473	do.....	do.....	do.....	162	1.82	6.3	6.3	15.2	4	25
7096	(1)	do.....	do.....	168	.67	7.2	5.6	14.1	2	16
7095	Independence.....	do.....	do.....	165	.90	5.3	7.5	12.0	2	67
7097	do.....	do.....	do.....	150	4.66	19.4	2.1	4.5	3	33
1862	Carthage.....	do.....	do.....	168	.22	6.0	6.6	7.3	8	67
6045	do.....	do.....	do.....	165	.83	6.4	6.3	7.7	5	(2)
3203	Webb City.....	do.....	Chert.....	162	.58	4.5	8.9	(2)	(2)	35
1521	Edina.....	do.....	Limestone.....	165	.96	7.1	5.6	6.1	5	94
5180	Lexington.....	Knox.....	do.....	165	1.38	4.5	8.8	13.7	6	27
1511	Macon.....	Lafayette.....	do.....	168	1.35	3.4	11.7	16.6	14	37
1513	do.....	do.....	do.....	168	1.07	3.9	10.4	16.1	14	35
1080	Mine La Motte.....	do.....	do.....	175	.52	4.0	10.1	15.5	10	55
1016	Neosho.....	Madison.....	Chert.....	(2)	(2)	4.6	8.8	(2)	(2)	(2)
1125	do.....	do.....	do.....	125	11.10	6.9	5.8	10.6	21	38
1634	Vider's post office.....	St. Louis.....	Limestone.....	165	1.03	3.9	10.4	14.7	8	31
1081	St. Louis.....	do.....	do.....	168	.75	3.8	10.4	14.6	9	55
1596	do.....	do.....	do.....	168	.60	5.6	7.2	12.8	6	30
7284	Mincke.....	do.....	do.....	168	.60	6.4	6.3	10.2	4	34
8221	St. Louis.....	do.....	do.....	168	1.33	3.9	10.3	(2)	(2)	45
8216	do.....	do.....	do.....	168	.73	3.7	10.8	(2)	(2)	40
8217	do.....	do.....	do.....	168	.64	3.8	10.5	14.3	6	53
8215	do.....	do.....	do.....	168	.75	4.9	8.2	16.7	7	62
2114	Sedalia.....	Pettis.....	do.....	165	.57	7.6	5.2	9.7	5	46
2115	do.....	do.....	do.....	165	2.14	4.1	9.7	6.9	4	34

MONTANA.

2157	Anaconda.....	Deer Lodge.....	Limestone.....	165	0.74	7.5	5.3	13.1	3	76
1649	Bozeman.....	Gallatin.....	Sandstone.....	156	2.13	3.8	10.5	18.7	15	4
1651	do.....	do.....	Calcareous sandstone.....	162	1.77	3.4	11.6	16.5	15	200
8650	Billings.....	Yellowstone.....	do.....	165	1.05	3.7	10.8	17.3	10	81

NEBRASKA.

2940	Cedar Creek	Cass	Limestone	165	1.19	5.4	7.4	14.9	6	50
2941	do	do	do	165	.85	5.9	6.8	14.9	6	41
2942	do	do	do	165	1.61	4.7	8.6	13.2	6	59
2943	Nehawka	do	do	165	.83	4.9	8.2	14.7	5	30
2944	do	do	do	159	2.43	5.4	7.4	11.4	6	145
360	Blue Springs	Gage	Flint	159	1.33	5.8	6.9	(2)	(2)	(2)
3091	Wymore	do	Dolomitic chert	156	3.98	11.8	3.4	(2)	(2)	16
1361	Johnson Town	Nemaha	Limestone	150	5.30	3.7	10.7	16.2	5	32
1362	do	do	do	153	4.40	10.1	4.0	4.0	4	29
1509	Auburn	do	do	159	3.12	4.4	9.0	6.2	7	84
1510	do	do	do	153	4.38	5.1	7.8	11.0	7	111

NEW HAMPSHIRE.

370	Hanover	Grafton	Very coarse granite	165	0.21	3.2	12.6	(2)	(2)	(2)
371	do	do	Hornblende schist	193	.22	3.3	12.3	(2)	(2)	(2)
372	Lebanon	do	do	190	.38	4.0	9.9	(2)	(2)	(2)
373	do	do	Biotite schist	168	.47	5.9	6.7	(2)	(2)	(2)
2102	Haverhill	do	Quartzite schist	165	.89	2.3	17.2	18.2	10	33
2020	do	do	Porphyritic diorite	187	.71	1.8	21.7	18.0	12	25
2101	do	do	Diorite	184	.87	2.2	16.3	17.2	9	17
2182	do	do	Altered diabase	181	.39	2.2	18.0	16.9	19	500+
4050	Manchester	Hillsborough	Quartz	165	.15	4.0	10.0	(2)	(2)	3
5545	Merrimack	do	Sandstone	168	.71	5.9	6.7	17.5	6	29
5751	Hanover	do	Biotite gneiss	168	.55	10.3	3.9	18.0	6	62
5750	do	do	Biotite schist	168	.19	2.8	14.3	17.2	23	39
5752	do	do	Biotite granite	165	.26	3.5	11.4	18.5	9	29
9009	Milford	do	do	165	.59	3.6	11.1	18.0	8	15
8872	do	do	Granite	165	.31	4.6	8.8	(2)	(2)	(2)
8873	Concord	Merrimack	do	165	.47	3.6	11.0	18.5	10	34
8870	do	do	do	165	(2)	3.8	10.5	(2)	7	(2)
9036	do	do	do	165	.63	3.9	10.0	18.0	8	(2)
9037	do	do	do	165	.52	4.1	9.7	17.7	7	(2)
9031	do	do	do	165	.43	4.0	10.0	18.7	10	7
2362	Portsmouth	Rockingham	Altered rhyolite	172	.14	2.7	14.8	18.8	11	25
1773	Farmington	Stratford	Granite	165	.29	3.7	10.8	17.3	12	19

¹ Exact locality not known.² Test not made.

TABLE V.—*Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.*

NEW JERSEY.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
				<i>Pounds.</i>	<i>Pounds.</i>					
260	Great Notch.....	Essex.....	Diabase.....	(1)	(1)	1.8	21.8	(1)	(1)	(1)
261	do.....	do.....	do.....	(1)	(1)	2.2	18.6	(1)	(1)	(1)
986	Montclair.....	do.....	Basalt.....	181	.95	1.9	21.3	18.4	24	125
987	do.....	do.....	do.....	184	.61	1.8	21.7	17.6	35	283
988	do.....	do.....	do.....	187	.30	1.7	24.1	18.8	29	45
1718	Millburn.....	do.....	do.....	184	.10	2.0	20.0	18.0	21	120
1721	West Orange.....	do.....	Altered basalt.....	184	.10	1.8	22.0	18.5	21	113
1727	Verona.....	do.....	Basalt.....	181	.50	2.3	17.7	17.8	17	500+
1733	West Orange.....	do.....	Altered basalt.....	187	.10	1.8	22.7	17.3	24	238
1754	do.....	do.....	Basalt.....	187	.10	1.4	27.8	17.3	28	60
1755	do.....	do.....	do.....	184	.36	2.3	17.7	18.3	28	77
73	Guttenberg.....	Hudson.....	do.....	(1)	(1)	1.3	30.4	(1)	(1)	(1)
1751	Secaucus.....	do.....	Gabbroic diabase.....	184	.12	2.8	14.2	18.3	27	92
1756	do.....	do.....	do.....	187	.18	2.1	19.0	18.3	18	88
1773	Jersey City.....	do.....	Olivine diabase.....	196	.13	2.5	16.1	18.3	19	31
251	Byram Station.....	Hunterdon.....	Basalt.....	(1)	(1)	1.5	26.9	(1)	(1)	(1)
253	Lambertville.....	do.....	Hornblende granite.....	(1)	(1)	2.8	14.2	(1)	(1)	(1)
387	do.....	do.....	Altered gabbro.....	184	.14	2.8	14.3	(1)	(1)	(1)
903	do.....	do.....	Gabbroic diabase.....	(1)	(1)	(1)	(1)	17.1	23	(1)
2085	Whitehouse.....	do.....	Altered diabase.....	181	.08	1.8	21.7	17.5	18	385
2786	do.....	do.....	do.....	184	.47	2.6	15.6	18.3	27	45
2838	do.....	do.....	do.....	178	.39	3.7	10.9	17.0	10	43
2842	do.....	do.....	Dolomite.....	178	.37	3.3	12.2	16.3	13	15
1015	do.....	do.....	do.....	177	.15	3.7	10.8	16.9	15	43
4026	do.....	do.....	do.....	168	.52	(1)	(1)	17.6	17	25
5233	Clinton.....	do.....	Calcareous sandstone.....	175	.25	3.0	13.5	17.6	25	21
5848	Middle Valley.....	do.....	Siliceous limestone.....	187	.17	2.8	14.3	18.7	26	34
5946	High Bridge.....	do.....	Hornblende gneiss.....	190	.95	3.9	10.2	18.5	16	28
6035	Flemington.....	do.....	Augite diorite.....	162	.32	(1)	(1)	17.3	27	52
283	Hopewell.....	do.....	Siliceous slate.....	(1)	(1)	2.5	16.3	(1)	(1)	(1)
5448	do.....	do.....	Diabase.....	184	.26	2.8	10.5	17.7	17	(1)
6008	do.....	do.....	Altered diabase.....	187	.05	2.4	16.4	18.5	21	42
249	Bergen Hill.....	do.....	Gabbroic diabase.....	(1)	(1)	2.7	15.0	(1)	(1)	(1)
250	Wilmington.....	Middlesex.....	Gabbro.....	(1)	(1)	2.0	19.6	(1)	(1)	(1)
303	Middle Valley.....	Morris.....	Basalt.....	(1)	(1)	1.7	26.3	(1)	(1)	(1)
405	do.....	do.....	Diabase.....	187	.09	1.7	23.8	(1)	(1)	(1)
1708	Millington.....	do.....	do.....	187	.61	2.7	14.9	17.7	18	300+
2802	Middle Valley.....	do.....	Altered diabase.....	187	.19	2.5	15.7	18.7	32	69
2280	Hibernia.....	do.....	Quartz syenite.....	165	.21	3.2	12.6	18.8	12	16

5571	Montville.....	do.	175	27	3.5	11.6	18.4	11	13
7194	Wharton.....	do.	131	4.47	12.6	3.2	9.5	4	19
478	Wanaque.....	Passaic	200	.33	3.6	11.1	(1)	(1)	25
1713	Montclair Heights.....	do.	184	.28	2.1	19.0	18.8	24	302
1716	Paterson.....	do.	181	.39	1.9	20.6	18.7	25	74
1717	Albion Place.....	do.	184	.59	1.5	27.0	18.5	30	68
1730	Mountain View.....	do.	184	.85	2.5	16.0	17.8	21	500+
1731	Paterson.....	do.	184	.59	1.6	24.4	18.3	31	(1)
248	Rocky Hill.....	Somerset	(1)	(1)	2.1	19.4	(1)	(1)	(1)
252	Boundbrook.....	do.	(1)	(1)	2.2	18.6	(1)	(1)	(1)
357	Chimney Rock.....	do.	187	12	2.7	23.6	(1)	(1)	(1)
637	Somerville.....	do.	147	6.32	14.7	2.7	(1)	(1)	(1)
699	do.	do.	150	5.09	9.3	4.3	(1)	(1)	(1)
1619	Boundbrook.....	do.	181	1.81	1.5	26.7	19.1	27	32
2995	North Plainfield.....	do.	187	.41	2.0	23.5	19.1	34	298
284	Mechanic Mountain.....	do.	(1)	(1)	1.7	24.0	(1)	(1)	(1)
288	Chimney Rock.....	do.	(1)	(1)	1.6	24.4	(1)	(1)	(1)
1706	Warrenville.....	do.	187	.33	1.8	22.0	18.3	28	70
1719	Bernardsville.....	do.	178	.24	4.9	10.1	18.5	16	143
4395	Boundbrook.....	do.	181	.57	1.8	22.2	18.6	33	124
4932	Belmeade (near).....	do.	187	.15	1.6	24.4	18.8	34	12
285	Rocky Hill.....	do.	(1)	(1)	2.4	16.5	(1)	(1)	(1)
287	Bernardsville.....	do.	(1)	(1)	4.1	9.7	(1)	(1)	(1)
2205	do.	do.	178	.64	3.3	12.0	(1)	(1)	35
3504	Hamberg.....	Sussex	184	.12	3.3	12.3	17.9	15	44
350	New Providence.....	Union	187	.39	1.7	23.6	(1)	(1)	(1)
6585	do.	do.	184	.45	1.5	26.0	17.9	25	264
912	Springfield.....	do.	181	1.15	1.7	23.3	18.6	30	174
1707	Summit.....	do.	184	.32	2.2	18.0	18.3	8	225
6595	Springfield.....	do.	181	.97	1.08	22.7	18.1	28	284
6586	Summit.....	do.	184	1.00	1.9	20.6	17.5	38	381
3145	Washington.....	Warren	178	.14	1.2	33.3	17.2	1.2	17
7436	(?).....	(?)	187	.45	1.9	21.0	18.7	22	69

NEW YORK.

1193	Albany.....	Albany.....	168	0.08	2.9	13.8	17.1	20	39
4989	South Bethlehem.....	Limestone	168	.19	4.8	8.4	16.1	10	10
5673	Guiderland.....	do.	165	1.58	3.2	12.7	14.7	10	36
6455	(?).....	Siliceous limestone	168	.33	4.7	8.6	18.2	9	11
6457	(?).....	Feldspathic quartzite	168	.49	3.9	10.4	18.0	10	10
6458	(?).....	Plagioclase gneiss	168	.51	3.4	11.7	18.0	13	22
6929	Clinton Point.....	Pyroxene gneiss.....	172	.21	2.7	14.8	17.2	12	43
385	Hudson.....	Limestone.....	175	.40	5.8	(1)	(1)	(1)	(1)
340	do.....	Calcareous slate.....	168	.50	6.9	7.6	(1)	(1)	(1)
195	Cortland.....	Limestone.....	168	(1)	5.3	7.5	(1)	(1)	(1)
2560	Poughkeepsie.....	Hypersihene gabbro.....	178	1.40	3.2	12.5	17.5	12	17
		Dolomite.....							

1 Test not made.

2 Exact locality not known.

TABLE V.—*Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.*

NEW YORK—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Commenting value.
5544	Camelot.	Dutchess.	Dolomite.	Pounds, 175	Pounds, .33	2.3	17.5	16.8	23	33
6764	North Hamburg.	do.	Siliceous dolomite.	178	.24	2.3	17.1	17.3	20	41
8011	(C)	do.	Dolomite.	175	.29	5.0	8.0	17.6	19	317
1327	Clinton Point.	do.	Dolomitic sandstone.	175	.21	(2)	(2)	17.5	19	35
2479	Poughkeepsie.	do.	Calcareous sandstone.	172	.44	3.7	10.9	18.0	14	31
2480	do.	do.	do.	172	.32	4.6	8.6	15.8	14	20
2559	do.	do.	do.	172	.21	3.3	12.0	18.3	13	28
2561	do.	do.	Biolite gneiss.	172	.83	2.7	14.8	(2)	(2)	3
2639	Stonew.	do.	Dolomitic marble.	165	.16	2.3	17.5	16.7	7	20
5225	Akron.	do.	Cherty limestone.	175	.35	2.3	6.8	18.8	16	81
5272	Buffalo.	do.	Cherty limestone.	168	1.27	3.4	11.8	16.2	10	17
1783	Keesville.	Essex.	Cherty limestone.	165	.86	4.1	9.7	19.2	16	6
410	Leroy.	Fulton.	Gabbro.	228	.74	(2)	10.8	17.0	10	28
8577	Gloversville.	Genesee.	Biolite gneiss.	172	.19	3.7	5.5	18.0	(2)	52
732	North Leroy.	do.	Flint.	162	.20	7.2	8.4	(2)	(2)	100
733	do.	do.	Limestone.	168	.06	4.7	7.9	(2)	(2)	44
6755	Catskill.	Green.	do.	162	.40	5.1	10.8	13.1	9	14
532	Little Falls.	Herkimer.	Calcareous sandstone.	168	.94	3.7	20.7	(2)	(2)	14
1768	do.	do.	Gneiss.	165	.23	1.9	6.5	17.3	18	10
1769	do.	do.	Pyroxene gneiss.	181	.12	6.1	4.4	15.7	12	16
1771	Little Falls.	do.	Gneiss.	162	.33	9.1	5.3	14.7	17	45
1770	do.	do.	Pyroxene gneiss.	162	.13	7.6	19.4	17.0	35	22
2512	Salsbury.	do.	do.	187	.11	2.1	17.2	18.7	21	16
1853	Little Falls.	do.	Crystalline dolomite.	168	.40	2.3	7.7	12.2	7	59
2650	Elmira.	do.	Limestone.	175	.50	5.2	23.0	6.3	3	43
192	Round Island.	do.	Gneiss.	147	6.29	7.4	5.4	(2)	(2)	18
1896	Clayton.	Jefferson.	Granite.	(2)	.11	1.7	23.0	18.9	14	9
7437	Alexandria Bay.	do.	do.	165	.24	2.5	16.1	18.8	8	18
8853	do.	do.	do.	165	(2)	3.8	10.4	19.0	14	(2)
8902	do.	do.	do.	(2)	(2)	(2)	(2)	19.3	11	(2)
356	Brookport.	Monroe.	Fossiliferous limestone.	168	.26	4.5	8.9	(2)	(2)	47
917	Honeoye Falls.	do.	Cherty limestone.	168	.20	3.6	11.0	(2)	(2)	29
937	do.	do.	Nodular limestone.	165	2.70	6.1	6.6	(2)	(2)	45
938	do.	do.	Dolomitic limestone.	168	.27	3.6	11.2	15.6	9	16
do.	do.	do.	Dolomite.	159	3.26	4.1	15.1	15.1	18	82
1211	Amsterdam.	do.	Limestone.	168	.44	2.2	17.9	16.5	15	43
1512	Pattersonville.	Montgomery.	Dolomitic limestone.	175	1.27	2.6	15.2	15.8	9	54
1746	Amsterdam.	do.	Limestone.	168	.22	4.8	8.4	15.2	9	54

New York.	New York.	Phosphate rock.	2.32	11.9	3.4	(3)	(2)	37
1185	do.	Slag rock.	181	4.4	9.1	17.3	21	37
1219	do.	Medina sandstone.	243	2.3	17.5	(2)	(2)	(2)
193	Niagara	Dolomite.	175	2.9	13.6	15.7	18	22
5224	Niagara Falls.	Limestone.	172	2.6	15.5	16.2	14	88
1296	Syracuse	do.	172	3.3	12.0	16.2	10	88
1297	do.	do.	168	1.18	8.7	9.7	7	41
1919	do.	do.	168	3.8	10.6	16.5	7	41
1920	do.	Argillaceous limestone.	162	2.9	6.0	14.8	11	40
7005	Schoepfels Bridge.	Siliceous limestone.	165	1.20	13.9	(2)	(2)	(2)
346	Geneva.	Limestone.	172	2.9	8.8	(2)	(2)	(2)
347	do.	do.	168	4.5	8.8	(2)	(2)	(2)
400	Canandaigua.	do.	168	16	4.6	8.8	6	62
6864	Phelps.	do.	175	3.2	12.3	16.0	6	62
1833	Warwick Township.	Diorite.	190	39	7.0	18.3	9	24
6720	Orange.	Gneissoid granite.	168	3.7	10.8	18.2	9	24
6772	do.	Hornblende granite.	165	6.8	5.9	18.4	6	17
9619	do.	Granite.	165	2.1	19.0	19.3	7	15
6765	Cedar Cliff.	Siliceous dolomite.	178	4.2	9.6	17.1	5	35
8908	Monroe.	Dolomite.	178	5.5	7.3	16.7	8	29
791	Florida.	Dolomitic sandstone.	175	3.7	10.9	17.4	24	(3)
3144	Highland Mills.	Ferruginous sandstone.	165	2.5	16.3	18.8	11	15
8909	Monroe.	Calcareous sandstone.	168	3.0	13.2	18.7	19	15
8910	do.	Sandstone.	165	4.8	19.0	19.0	4	10
4406	Albion.	Ferruginous sandstone.	156	3.9	10.3	16.0	12	23
2175	Oswego.	Pyroxene quartzite.	168	7.0	5.7	17.2	10	10
2176	do.	Quartzite.	165	7.6	5.3	18.9	13	5
2177	do.	Feldspathic quartzite.	159	1.53	12.6	14.8	21	18
2649	Cooperstown.	Sandstone.	159	(2)	(2)	18.2	12	37
8041	Garrison.	Granite.	165	5.2	7.8	18.7	11	10
2317	Putnam.	Limestone.	172	3.1	12.7	16.8	12	17
2318	Hoosick Falls.	do.	175	3.2	12.7	17.0	11	24
2318	do.	do.	172	2.8	14.4	18.9	20	36
2880	do.	Calcareous sandstone.	168	2.1	19.2	17.9	14	72
5608	Brainard.	Feldspathic sandstone.	175	5.1	7.8	(2)	(2)	(2)
45	Tompkins Cove.	Siliceous limestone.	168	5.9	6.7	(2)	(2)	(2)
470	do.	Limestone.	168	6.3	6.3	(2)	(2)	(2)
127	do.	do.	175	2.7	14.9	(2)	(2)	(2)
49	Haverstraw.	Dibase.	(2)	2.3	17.8	(2)	(2)	(2)
95	do.	do.	193	3.0	13.2	(2)	(2)	(2)
335	do.	do.	184	1.9	20.8	16.1	27	500+
1321	do.	do.	184	3.9	20.8	16.1	27	500+
1361	do.	do.	184	2.7	15.0	18.2	17	247
2304	do.	do.	184	5.1	7.9	17.7	20	117
4401	Nyack.	Gabbroitic diabase.	184	3.6	15.4	18.3	33	44
4962	Rockland Lake.	do.	181	2.3	16.8	18.1	21	42
4964	do.	Diabase.	187	2.5	15.8	18.5	23	9
4996	Upper Nyack.	Altered diabase.	184	1.45	16.1	15.8	77	182
5315	Suffern.	Gabbroitic diabase.	184	2.5	16.1	15.8	25.0	9
5588	Congers.	Altered diabase.	181	1.6	18.3	18.3	31	31
5880	West Nyack.	do.	181	2.2	18.1	18.2	24	142

Test not made.

Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

NEW YORK—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Commenting value.
6723	Haverstraw	Rockland.	Diabase.....	Pounds. 184	Pounds. .82	2.3	17.4	17.8	18	66
6724	do.	do.	do.	184	.39	2.3	17.4	18.0	17	131
6725	do.	do.	Gabbroitic diabase	184	.56	2.6	15.6	18.1	23	309
7805	()	do.	Diabase	187	.35	2.4	16.4	18.0	18	89
8012	()	do.	Gabbroitic diabase	184	.16	4.6	8.6	18.5	14	30
6774	Tompkins Cove.	do.	Siliceous dolomite.	178	.26	4.3	17.8	16.4	9	186
6775	do.	do.	Dolomite	175	.44	4.9	8.2	12.7	7	70
6776	do.	do.	Siliceous dolomite.	175	.26	6.9	5.8	17.2	13	13
9402	Tompkins Cove.	do.	do.	175	.35	4.8	8.3	16.6	13	36
4328	Massena	St. Lawrence	do.	175	.44	4.3	9.4	16.5	16	22
4330	do.	do.	do.	175	.84	3.1	13.1	16.8	20	28
1524	Saratoga Springs	do.	Hornblende gneiss.	190	.28	4.7	8.5	16.9	16	41
1525	do.	do.	Altered diabase	175	.42	2.3	17.1	17.6	18	57
1689	do.	do.	Feldspathic sandstone.	168	.65	2.8	14.1	17.5	11	20
94	Schenectady	do.	Sandstone.	(²)	(²)	3.8	10.5	(²)	(²)	(²)
1538	Schoharie.	do.	Limestone.	(²)	(²)	4.2	9.6	(²)	(²)	(²)
188	do.	do.	do.	108	.52	4.5	8.8	13.7	7	98
382	Deerpark.	Suffolk.	Sandy shale.	165	1.96	4.7	8.6	(²)	(²)	(²)
1607	Smithborough.	Toga.	Feldspathic sandstone.	162	2.09	2.7	15.0	17.3	17	15
1100	West Camp.	Ulster.	Limestone	168	.26	3.0	13.2	16.9	5	61
1693	Kingston.	do.	do.	172	.11	3.1	12.7	14.8	6	62
3932	Kingston (new).	do.	Siliceous limestone	168	.45	4.8	8.4	15.1	7	48
5222	Kingston.	do.	Limestone.	168	.33	4.0	10.0	16.8	8	22
5223	do.	do.	do.	168	.23	5.3	7.6	16.7	7	31
5574	Roundout.	do.	do.	168	.39	5.0	7.9	16.4	10	65
2027	East Kingston.	do.	Calcareous sandstone	168	.24	2.8	14.4	15.0	13	207
6363	Kingston.	do.	Feldspathic sandstone.	155	1.00	3.1	12.8	17.0	16	25
6334	Ulster.	do.	Calcareous sandstone.	168	.80	5.3	7.5	13.3	16	149
1257	Greenwich.	Washington.	Limestone.	178	.21	2.2	18.2	16.7	19	26
6732	Smiths Basin.	do.	Siliceous dolomite.	175	.23	2.7	17.0	18.3	14	34
983	Newark.	Wayne.	Dolomite limestone.	139	2.10	3.3	7.5	(²)	(²)	(²)
984	do.	do.	Limestone.	172	.42	4.9	8.1	12.2	41	41
941	Burr Cliff Manor.	Westchester.	Hornblende schist.	190	.26	2.5	16.2	17.2	22	38
2160	Cortlandt.	do.	Diorite	190	.56	3.0	13.2	16.7	10	106
2161	do.	do.	do.	184	.42	3.8	10.4	16.6	8	134
404	Bellona.	Yates.	Limestone.	168	.14	5.3	7.5	(²)	(²)	(²)
1118	Toney.	do.	do.	168	.22	4.3	9.2	17.3	9	40

NORTH CAROLINA.

822	Haw River.	Alamance.	Chlorite epidote schist.	175	0.06	3.1	13.1	18.5	34	26
7771	Burlington.	do.	Altered gabbro.	184		3.5	11.4	16.7	9	19
825	Wadesboro.	Anson.	Dabase.	187	.06	1.9	20.6	18.4	27	27
9226	Cramberry.	Avery.	Peridotite.	240		3.5	11.4	16.7	9	19
4991	Washington.	Beaufort.	Siliceous shell limestone.	140		33.6	1.2	17.6	5	29
409	Winston (near Asheville).	Buncombe.	Hornblende schist.	200	.15	5.7	7.1	(2)	(2)	(2)
705	Asheville.	do.	do.	193	.57	3.6	11.0	(2)	(2)	(2)
778	do.	do.	Biotite schist.	172	.09	3.4	11.8	(2)	(2)	(2)
627	do.	do.	Granite porphyry.	168	.26	2.2	18.6	(2)	(2)	(2)
628	do.	do.	Diorite gneiss.	184	.33	2.3	17.4	(2)	(2)	(2)
777	do.	do.	Granite gneiss.	168	.15	3.7	10.7	(2)	(2)	(2)
8135	do.	do.	Biotite gneiss.	178	.39	5.6	7.2	16.6	9	15
809	Monford (near Asheville).	do.	Micro granite.	165	.11	2.3	17.2	(2)	(2)	(2)
8133	Asheville.	do.	Granite.	165	.31	2.8	14.3	18.4	11	14
8134	do.	do.	Aplitic granite.	165	.24	2.2	18.7	17.3	7	12
4963	do.	do.	Dolomite.	(2)		4.0	10.0	(2)	14	18
535	Morgantown.	Burke.	Basalt.	190	.15	2.0	20.3	(2)	(2)	11
434	Concord.	Cabarrus.	Micro granite.	162	.33	1.8	21.7	(2)	(2)	34
436	do.	do.	Augite syenite.	165	.29	5.7	7.0	(2)	(2)	13
6566	do.	do.	do.	168	.24	5.0	8.0	18.3	11	30
513	Concord (near).	do.	Syenite.	168	.28	2.8	14.4	(2)	(2)	27
4717	Hickory	do.	Hornblende granite.	172	.14	2.2	18.3	18.5	22	35
4723	do.	Catawba.	Granite gneiss.	168	.24	6.9	5.8	17.9	4	12
839	Silver City (4 miles northwest of).	do.	do.	172	.24	6.3	6.3	17.9	8	20
3382	Andrews.	Chatham.	Chlorite epidote schist.	175	.08	2.3	17.7	19.3	15	6
3383	do.	Cherokee.	Quartzite.	165	.31	4.9	8.2	19.3	3	61
6190	Murphy.	do.	Marble.	172	.16	6.0	6.7	14.1	21	21
7022	Regal.	do.	do.	172	.28	4.4	9.1	14.7	6	4
6196	Murphy.	do.	do.	171	.06	4.7	8.5	16.2	7	12
6197	do.	do.	Mica schist.	171	.43	4.1	6.6	(2)	10	26
6198	do.	do.	Serpentine schist.	172	.31	3.2	12.4	(2)	(2)	52
2576	Shelby.	Cleveland.	Sandstone.	162	.54	11.3	3.5	(4)	7	17
381	Newberne.	Craven.	Biotite gneiss.	175	.26	1.3	1.2	18.3	32	12
3209	Thomasville (5 miles from).	Davidson.	Fossiliferous limestone.	137	1.93	34.2	15.0	19.3	20	12
7775	Newson.	do.	Altered andesite.	165	.23	2.7	14.8	19.3	33	19
8710	do.	do.	Rhyolite.	175	.47	4.1	9.8	(2)	9	15
2988	Durham.	do.	Altered rhyolite.	184	.42	(2)	(2)	(2)	14	19
813	Bethania Station.	do.	Hornblende epidote schist.	190	.04	3.0	13.4	17.3	39	1
1403	Winston.	Forsythe.	Olivine basalt.	165	.08	1.9	20.4	18.5	19	8
7561	do.	do.	Granite gneiss.	187	.82	3.9	10.3	18.0	15	15
838	Winston-Salem (near).	do.	Epidote quartzite.	165	.49	5.7	7.0	17.4	5	13
8503	Franklin.	Franklin.	Granite.	184	.35	2.7	14.9	17.4	13	12
8882	Gastonia.	Gaston.	Olivine diabase.	175	.51	2.6	15.4	18.8	12	(2)
815	Jamestown.	do.	Quartzite.	175	.13	2.5	16.0	(2)	27	26
819	Greensboro.	Guilford.	Aplitic granite.	184	.11	2.1	19.1	18.1	(2)	(2)
	do.	do.	Uralitic diabase.	187	.14	1.6	24.7	(2)	(2)	(2)

² Test not made.

Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

NORTH CAROLINA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
				<i>Pounds.</i>	<i>Pounds.</i>					
816	Jamestown.....	Guilford.....	Granite.....	168	.13	3.4	11.7	18.0	(1)	10
817	Greensboro.....	do.....	do.....	172	.11	2.6	15.2	(1)	(1)	11
818	do.....	do.....	Dolomitic sandstone.....	178	.14	1.9	21.1	17.2	27	18
820	do.....	do.....	Gabbro.....	133	.21	3.5	11.6	(1)	(1)	37
821	do.....	do.....	Diorite.....	133	.09	2.9	13.6	(1)	(1)	21
822	do.....	do.....	do.....	134	.06	2.3	17.7	18.4	24	20
823	do.....	do.....	Granite gneiss.....	165	.11	3.2	12.4	(1)	(1)	12
810	Balfour.....	Henderson.....	do.....	165	.23	3.1	12.7	18.5	10	8
2755	Hendersonville (2 miles northwest of)	do.....	do.....	165	.23	3.0	13.3	18.9	11	20
8576	Moore'sville.....	Iredell.....	Biotite granite.....	168	.40	3.0	13.3	18.9	11	20
6795	Sylva.....	Jackson.....	Biotite gneiss.....	137	.28	6.1	6.6	17.2	8	74
6794	do.....	do.....	do.....	168	.33	4.3	9.3	18.4	7	24
6793	do.....	do.....	Biotite schist.....	184	.60	6.4	6.2	15.1	7	59
6882	Franklin.....	do.....	Biotite gneiss.....	172	.42	5.4	7.4	17.0	6	32
6883	do.....	do.....	do.....	172	.28	11.0	3.6	9.5	5	24
6977	Hewitt.....	do.....	do.....	172	.27	3.3	13.1	17.2	8	9
504	Hot Springs.....	Madison.....	Dolomitic marble.....	181	.21	6.0	6.6	15.2	10	(1)
772	do.....	do.....	Dolomite.....	178	.13	4.2	9.5	(1)	(1)	21
771	do.....	do.....	do.....	178	.22	5.5	7.2	(1)	(1)	(1)
867	Marion.....	do.....	Quartzite.....	165	.17	3.3	12.3	17.0	19	28
2124	Old Fort (near).....	McDowell.....	Biotite gneiss.....	168	.20	2.8	17.6	17.0	13	20
2190	Old Fort.....	do.....	Serfite gneiss.....	172	.10	3.8	10.6	19.0	13	20
5373	(3).....	do.....	Gneiss.....	168	.21	2.8	14.2	18.3	13	50
868	do.....	do.....	Granite gneiss.....	168	.28	3.5	11.5	18.8	15	16
811	Charlotte.....	do.....	Dolomite.....	175	.27	4.7	8.6	(1)	(1)	21
913	Toe Can.....	Mecklenburg.....	Granite.....	175	.15	2.3	17.5	18.8	(1)	6
840	Carthage.....	Mitchell.....	Micaceous eclogite.....	196	.27	2.1	19.2	17.4	31	25
811	do.....	Moore.....	Olivine basalt.....	184	.28	2.8	14.5	17.9	16	62
2708	Rocky Mountain.....	Nash.....	Diabase.....	178	.64	2.7	15.1	18.0	18	21
7352	(3).....	do.....	Granite.....	165	.28	3.4	11.9	18.7	18	21
7353	Wilmington.....	do.....	Biotite granite.....	165	.29	5.0	8.0	19.5	8	16
402	Chapel Hill (1 1/2 miles east of)	New Hanover.....	Altered granite.....	162	.300	4.9	8.2	18.8	4	28
834	Hillsboro (1 mile southwest of)	Orange.....	Fossiliferous limestone.....	150	.277	9.9	4.0	(1)	(1)	(1)
835	Lynn.....	do.....	Olivine diabase.....	187	.11	2.7	14.6	18.9	50	44
2465	Tryon.....	Folk.....	Granite.....	165	.08	4.1	29.6	17.5	8	28
2753	Rockliff.....	do.....	Biotite granite.....	165	.36	5.8	6.9	17.8	10	14
5430	Asheboro.....	do.....	Granite gneiss.....	172	.33	6.6	6.1	17.8	(1)	18
514	Rockingham.....	Randolph.....	Talcite.....	168	.02	1.9	21.3	(1)	(1)	33
826	Rockingham.....	Rockingham.....	Hypersphene gabbro.....	187	.04	3.2	9.2	16.4	14	17
4109	Rufin.....	Rockingham.....	Granite gneiss.....	162	.47	4.3	9.2	18.8	12	16

[illegible]

Test not made.

² Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

OHIO.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
6093	Liman.....	Allen.....	Dolomite.....	Pounds. 165	Pounds. 2.24	4.0	10.0	15.5	11	18
9438	do.....	do.....	Argillaceous dolomite.	168	2.10	2.9	13.8	15.6	7	36
3186	Jefferson.....	Ashtabula.....	Sandstone.....	153	2.37	10.0	4.0	9.2	5	20
977	Urbana.....	Champaign.....	Calcareous sandstone.....	159	3.60	11.4	3.5	7.3	7	32
4892	Springfield.....	do.....	do.....	168	3.90	32.8	1.2	0	5	20
4695	do.....	Clark.....	Dolomite.....	168	1.59	6.8	5.9	11.3	4	(1)
4694	Osborne.....	do.....	do.....	168	.60	6.7	6.0	14.0	9	(1)
5247	Melvin.....	Clinton.....	Dolomitic limestone.....	168	.31	6.8	6.4	13.3	4	(1)
6718	Leetonia.....	Columbiana.....	Dolomite.....	162	2.11	11.8	3.4	13.8	7	21
8597	do.....	do.....	Blast furnace slag.....	(1)	(1)	13.1	3.1	(1)	3	400
1309	Coshocton.....	do.....	do.....	(1)	(1)	11.3	3.1	(1)	7	83
765	Chagrin Falls.....	Coshocton.....	Limestone.....	168	1.10	3.5	11.3	16.2	19	71
9459	Cleveland.....	Cuyahoga.....	Sandstone.....	156	4.10	4.4	9.8	(1)	(1)	307
9282	do.....	do.....	Granite.....	165	.15	2.9	13.8	18.5	10	(1)
9283	do.....	do.....	do.....	(1)	(1)	(1)	(1)	19.0	12	(1)
9284	do.....	do.....	do.....	(1)	(1)	(1)	(1)	18.8	8	(1)
9285	do.....	do.....	do.....	(1)	(1)	(1)	(1)	18.6	9	(1)
1570	Warrenville.....	do.....	Limestone.....	162	1.79	7.5	5.3	12.4	11	34
1944	Sandusky.....	Erie.....	do.....	165	1.75	4.3	9.3	13.7	6	41
1989	do.....	do.....	do.....	165	1.33	4.9	8.2	13.7	7	65
1990	do.....	do.....	do.....	168	1.30	3.5	11.4	14.0	7	94
2979	do.....	do.....	do.....	168	1.33	3.8	10.5	13.1	8	58
4378	do.....	do.....	do.....	165	1.46	4.4	9.0	10.4	8	25
5554	do.....	do.....	do.....	168	1.05	3.9	10.2	17.3	10	17
5753	Castalia.....	do.....	Dolomitic limestone.....	165	1.85	5.6	7.2	13.9	7	38
6055	do.....	do.....	Limestone.....	172	.50	5.5	7.3	13.7	7	41
6056	Akron Junction.....	do.....	Cherty limestone.....	168	.20	5.5	7.6	19.5	10	27
2895	Wilmer.....	do.....	Calcareous sandstone.....	153	4.70	6.8	5.9	7.8	5	66
663	Columbus.....	Franklin.....	Limestone.....	159	3.25	6.7	6.0	(1)	(1)	29
664	do.....	do.....	do.....	162	1.70	6.9	5.8	(1)	(1)	59
666	do.....	do.....	do.....	156	2.60	3.8	10.6	(1)	(1)	74
2896	do.....	do.....	do.....	168	.69	3.8	10.5	15.9	6	105
3077	do.....	do.....	do.....	165	1.58	3.1	12.8	17.0	6	96
3356	Marble Cliff.....	do.....	do.....	165	1.45	4.0	10.1	16.0	10	61
3706	Columbus.....	do.....	do.....	168	1.98	4.3	9.3	15.5	11	31
5505	Marble Cliff.....	do.....	do.....	162	1.22	7.2	11.2	(1)	7	31
5506	do.....	do.....	do.....	162	2.14	7.2	5.0	(1)	7	31
5861	Columbus.....	do.....	do.....	165	1.05	7.8	10.4	14.5	6	39

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

OHIO—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
3714	Piqua.....	Miami.	Limestone.....	Pounds. 168	Pounds. .15	6.0	6.7	12.1	5	18
5880	do.....	do.	Crystalline limestone.....	172	.52	6.2	6.5	11.6	5	45
2015	Ludlow Falls.....	do.	Dolomite.....	172	.77	3.8	10.6	14.7	11	179
5891	Covington.....	do.	do.	172	1.84	3.8	10.4	12.4	8	29
5862	Piqua.....	do.	Marble.....	165	.92	7.8	5.2	5.6	3	23
1179	Madison Township.....	Montgomery.	Limestone.....	165	.74	10.2	3.9	11.2	7	101
1732	Dayton.....	do.	do.	175	.63	8.7	10.2	15.2	12	72
1763	do.....	do.	do.	162	.51	8.7	4.6	12.0	9	58
3257	Centerville.....	do.	do.	165	.70	6.2	6.5	9.3	5	60
3369	do.....	do.	do.	168	.96	7.4	5.4	14.8	6	46
1180	Butler Township.....	do.	Dolomite.....	165	1.22	7.5	5.4	14.8	10	48
7126	Zanesville.....	Muskingum.	Sandstone.....	153	2.10	43.9	.9	.0	1	(1)
8270	Gratiot.....	do.	Siliceous limestone.....	162	1.72	4.2	9.5	18.3	13	95
779	Oak Harbor.....	Ottawa	Dolomite.....	175	.21	6.1	6.5	(1)	(1)	31
778	do.....	do.	Limestone.....	165	.93	8.1	5.0	(1)	(1)	(1)
3541	White Rock.....	do.	Dolomite.....	175	.67	4.2	9.4	15.7	11	12
5757	do.....	do.	do.	168	1.40	5.8	6.8	15.5	10	18
6952	do.....	do.	do.	172	1.03	5.9	6.8	14.7	10	24
6990	Freedom Township.....	Portage	Limestone.....	165	1.39	4.6	8.7	15.1	13	46
6992	Atwater.....	do.	do.	168	1.11	4.7	8.5	17.4	8	49
6790	Palmira Township.....	do.	Ferruginous sandstone.....	153	5.70	10.0	4.0	(1)	(1)	54
7118	do.....	do.	do.	150	1.87	21.4	1.9	1.3	2	23
2893	New Paris.....	Preble.	Limestone.....	175	.82	4.3	9.4	17.9	7	68
3181	New Paris (near).....	do.	Dolomite.....	172	.98	5.6	11.0	15.3	13	29
5930	Lewisburg.....	do.	Argillaceous dolomite.....	159	5.55	7.2	5.6	2.3	4	139
5980	New Paris.....	do.	Dolomite.....	175	.47	2.6	15.4	15.8	14	28
3183	Ross.....	do.	Sandstone.....	165	3.69	(1)	(1)	15.8	11	16
4889	Bellevue.....	Sandusky	Limestone.....	165	.95	4.1	9.9	12.3	6	22
5090	do.....	do.	do.	168	.97	6.3	6.4	14.8	10	35
5091	do.....	do.	do.	172	1.46	4.2	9.5	16.4	14	32
(2)	Seneca.....	do.	Dolomite.....	165	1.29	6.9	5.8	13.8	6	75
2042	do.....	do.	do.	172	.96	6.7	6.0	15.3	7	49
5092	do.....	do.	do.	172	.55	10.8	3.7	12.4	4	54
7789	Fostoria.....	do.	Argillaceous dolomite.....	171	1.30	5.0	8.0	15.3	7	46
7776	do.....	do.	Dolomite.....	168	1.43	7.8	5.1	11.2	6	18
2477	Bloomville.....	do.	Argillaceous limestone.....	168	2.25	3.3	12.0	15.2	18	26
2478	do.....	do.	Limestone.....	172	.37	4.3	9.3	12.8	9	32
2332	Republic (near).....	do.	do.	168	2.12	4.5	8.8	15.3	8	43
5556	Bloomville.....	do.	do.	168	1.00	3.6	11.0	12.5	6	22

OKLAHOMA.

9281	do.	Stark.	do.	156	3.33	4.3	9.3	13.5	7	9	20
2663	North Industry.	Stark.	do.	168	.55	3.9	10.2	15.8	9	24	
2833	Twinsburg.	Summit.	do.	153	4.33	5.2	10.2	13.8	14	26	
828	Howland Township.	Trumbull.	do.	162	.80	3.1	13.0	(1)	8	21	
6710	Canal Dover.	Tuscarawas.	Blast furnace slag.	(1)	(1)	16.5	11.4	11.4	5	300	
4399	White Sulphur.	Union.	Limestone.	165	1.31	6.1	6.6	13.2	10	633	
5555	Middlepoint.	Van Worth.	Dolomite.	172	1.76	5.3	7.5	16.3	13	16	
6116	Willshire.	do.	do.	159	1.05	11.5	3.5	9.2	4	20	
4307	Cold Springs.	Warren.	do.	162	3.59	9.1	4.4	11.4	6	3	(1)
4691	Carey.	Wyandot.	do.	165	1.34	5.9	6.8	8.8	3		
4352	Choctie.	Atoka.	Chert.	162	0.65	2.7	14.9	19.2	25	21	
5853	Stringtown (near).	do.	do.	153	2.91	6.3	6.4	18.8	5	20	
5952	Choctie.	do.	Weathered chert.	159	1.72	7.4	5.4	(1)	(1)	29	
6374A	do.	do.	Chert.	162	.52	4.5	8.9	(1)	7	78	
6374B	do.	do.	do.	168	.73	(1)	9.3	16.0	(1)	55	
9464	Stringtown.	do.	Limestone.	162	1.90	4.3	9.3	18.8	4	500+	
2950	Watonga.	Blaine.	Argillaceous limestone.	143	3.34	38.2	1.0	4.8	13	50	
3347	do.	do.	Gypsum.	168	1.16	5.5	7.3	16.8	6	36	
4366	Richards Spur.	Comanche.	Dolomite.	168	.20	4.0	10.0	16.6	5	16	
4703	Fort Sill.	do.	Limestone.	168	.54	(1)	(1)	13.7	6	18	
4704	do.	do.	do.	162	1.12	(1)	(1)	14.8	6	18	
5251	do.	do.	do.	168	.62	3.9	10.4	16.2	9	26	
4705	Richards Spur.	do.	Altered rhyolite.	162	1.14	(1)	(1)	18.7	15	11	
4365	Fort Sill.	Grady.	Siliceous limestone.	165	.66	4.1	9.9	16.2	7	78	
4368	Cement.	Greer.	Granite porphyry.	165	.12	2.5	15.7	19.3	21	10	
4389	Granite City.	do.	Hornblende granite.	165	.20	6.3	6.3	18.7	8	10	
4370	do.	do.	do.	165	.20	3.8	10.5	19.0	9	13	
4356	do.	do.	Bituminous limestone.	135	2.69	4.0	10.0	3.2	6	500+	
6034	Ravia.	Johnston.	Limestone.	165	.53	4.4	9.0	15.5	7	30	
6928	(2)	do.	do.	162	.81	5.7	7.0	14.7	10	48	
7496	Wapanucka.	do.	do.	156	2.74	5.6	7.1	(1)	8	83	
4353	Tishomingo.	do.	Biotite granite.	165	.06	6.0	6.7	19.2	17	15	
4355	Ravia.	do.	Granite.	162	.39	3.3	12.0	19.0	9	15	
5590	do.	do.	Weathered granite.	162	.14	4.2	9.6	(1)	(1)	14	
4354	Tishomingo.	do.	Dischase.	196	.14	4.1	9.7	18.8	25	31	
4344	Ponca City.	Kay.	Clay limestone.	143	5.06	(1)	(1)	8.0	3	17	
4347	do.	do.	Limestone.	153	3.77	5.7	7.0	8.3	5	47	
4348	Newkirk.	do.	Clay limestone.	143	6.79	9.9	4.0	0.0	4	60	
4349	Uncas.	do.	Shell limestone.	150	5.29	9.3	4.3	0.0	3	53	
5122	Ponca City.	do.	Limestone.	156	2.91	(1)	(1)	13.2	7	32	
5143	do.	do.	do.	156	2.93	(1)	(1)	12.3	5	38	
5144	do.	do.	do.	150	3.50	(1)	(1)	11.0	5	35	
5145	do.	do.	do.	150	4.65	(1)	(1)	8.6	5	25	
5325	do.	do.	do.	156	3.20	6.1	6.5	8.6	5	22	
4367	Cold Springs.	Kiowa.	Diorite.	178	.24	2.8	14.3	18.8	22		

² Exact locality not known.¹ Test not made.

TABLE V.—*Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.*

OKLAHOMA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
3872	Madill.....	Marshall.....	Limestone.....	Pounds. 162	Pounds. 2.54	4.9	8.2	13.0	5	27
6077	Garvin.....	McCurran.....	do.....	156	1.98	10.0	4.0	.0	4	8
4339	Doughterty.....	Murray.....	Bituminous limestone.....	156	.86	4.2	9.6	(¹)	(¹)	500+
4362	Crusher.....	do.....	Limestone.....	168	.24	4.4	9.2	15.1	8	36
5376	do.....	do.....	do.....	172	.33	3.5	11.6	14.8	7	23
4383	Avant.....	Ossage.....	do.....	162	.23	5.7	7.0	12.3	4	32
5425	Ripley.....	Payne.....	Dolomite.....	175	.59	4.6	8.7	14.6	7	44
4350	Hartshorne.....	Pittsburg.....	Limestone.....	168	.31	(¹)	(¹)	16.8	8	38
4351	do.....	do.....	do.....	165	1.14	4.4	9.1	16.6	13	132
4364	Ada.....	Pontotoc.....	Fossiliferous limestone.....	165	.41	9.0	4.4	8.2	3	42
8836	Fitzhugh.....	do.....	do.....	159	2.22	16.7	2.4	6.7	2	20
8837	do.....	do.....	do.....	168	.69	12.0	3.3	17.7	7	13
5693	Tuskahoma.....	Pushmataha.....	Calcareous chert.....	162	.45	5.8	6.9	19.4	6	40
3717	Tulsa.....	Tulsa.....	Sandstone.....	159	3.17	9.6	4.1	14.2	13	112
6468	Dewey.....	Washington.....	Limestone.....	165	1.37	5.0	8.0	17.3	5	42

OREGON.

2920	St. Helens.....	Columbia.....	Basalt.....	175	1.80	1.8	22.7	18.8	22	17
7337	Griffen Creek.....	Jackson.....	Altered basalt breccia.....	181	.38	1.8	22.7	18.5	24	33
980	Eugene (near).....	Lane.....	Basalt.....	168	2.30	5.9	6.8	7.9	7	(¹)
982	do.....	do.....	Olivine basalt.....	184	.72	2.8	14.3	10.7	6	225
7004	do.....	do.....	Volcanic breccia.....	172	3.23	(¹)	(¹)	17.0	4	175
1766	Salem.....	Marion.....	Basalt.....	175	.83	3.9	10.4	18.0	38	15
1135	Troutdale.....	Multnomah.....	do.....	168	2.32	3.7	10.8	16.0	19	24
1136	Portland (near).....	do.....	do.....	162	2.27	6.8	10.6	15.8	20	49
1137	do.....	do.....	do.....	172	2.01	3.8	10.6	16.4	26	99
1454	Newberg.....	do.....	do.....	172	1.64	(¹)	(¹)	18.4	30	5
7319	do.....	do.....	Basalt tuffa.....	150	5.82	31.4	1.3	(¹)	(¹)	400
2070	Pendleton.....	Umatilla.....	Basalt.....	178	2.22	2.1	19.4	17.9	20	193
3758	Hillsboro.....	Washington.....	Olivine basalt.....	168	1.89	4.3	9.3	17.2	12	6
5354	do.....	do.....	Basalt.....	165	1.26	4.2	9.4	17.9	15	6

PENNSYLVANIA.

		Adams.	Limestone	172	0.20	4.9	8.2	14.2	9	64
1177	Bittinger.	do.	do.	165	1.25	2.0	20.4	17.2	25	36
2549	Cumberland.	do.	do.	175	.21	4.1	9.7	16.0	7	22
6069	Hanover (near)	do.	do.	178	.21	3.5	11.2	17.7	9	24
7670	(?)	do.	Siliceous limestone.	168	.94	3.7	10.8	12.2	7	48
1178	Bittinger.	do.	Feldspathic sandstone.	162	.81	3.2	12.7	18.9	8	27
1950	Abbotstown.	do.	Sandstone.	153	2.95	(1)	(1)	17.1	12	57
2245	Cumberland.	do.	do.	168	1.55	(1)	(1)	11.1	12	27
1483	Littleton.	do.	Slate.	165	2.10	(1)	(1)	11.1	7	101
1486	do.	do.	do.	165	2.10	(1)	(1)	11.1	7	101
1611	Oxford Township.	do.	Dolomite.	172	.43	3.9	10.2	17.7	16	42
1612	Berwick Township.	do.	Quartzite.	162	.60	4.0	10.1	18.3	5	4
1814	Manallen Township.	do.	Rhyolite.	165	.22	2.0	19.8	19.6	42	13
1815	do.	do.	do.	162	.35	1.9	21.1	19.5	34	22
1949	Hanover (near)	do.	Chlorite schist.	181	1.03	6.6	6.1	(1)	(1)	46
2125	do.	do.	Altered basalt.	175	2.38	2.9	13.8	17.0	10	500+
2171	Floradale.	do.	do.	181	1.18	2.0	20.4	18.2	9	260
2244	Cumberland.	do.	Diabase.	187	.91	(1)	(1)	18.6	24	19
8705	Granite Station.	do.	Hypersthene diabase.	190	.39	3.8	10.5	18.7	12	15
6881	do.	do.	Gabbroic diabase.	193	.25	2.5	16.0	17.9	8	20
5392	(?)	do.	Marble.	168	.47	4.7	8.5	12.4	5	42
6064	Hanover (near)	do.	do.	168	.11	4.0	10.0	14.7	8	20
6089	do.	do.	do.	168	.37	5.8	6.9	13.3	3	21
7499	do.	do.	do.	168	.37	5.1	7.9	11.0	6	66
2447	Duquesne.	do.	Slag.	131	4.40	6.4	6.2	17.3	9	46
3168	Munhall.	Allegheeny	do.	206	2.36	4.9	8.1	(1)	(1)	500+
1072	Pittsburgh	do.	Siliceous limestone.	168	.21	(1)	(1)	17.0	13	37
2118	Oakdale.	do.	Limestone	172	.29	4.2	9.5	16.4	7	64
2180	Corapolis (near).	do.	do.	165	.83	3.9	6.7	16.7	12	37
2152	Pittsburgh.	do.	do.	172	.60	(1)	(1)	16.6	9	49
5546	do.	do.	do.	168	.27	4.5	8.9	13.3	3	19
6086-1	do.	do.	Siliceous slate.	172	.41	(1)	(1)	19.0	29	(1)
6086-2	do.	do.	Pyroxene gneiss.	181	.42	(1)	(1)	18.1	8	(1)
1357	Ford City.	Armstrong	Limestone	168	.26	5.0	8.0	(1)	(1)	55
1358	do.	do.	do.	168	.58	4.0	10.0	16.4	17	30
2096	Kittanning.	do.	do.	165	.23	4.8	8.3	15.5	8	83
2159	Franklin.	do.	do.	165	1.21	4.1	9.8	15.0	7	62
2296	Kittanning.	do.	do.	168	.35	4.9	8.2	15.7	8	57
2551	Craigville (near).	do.	do.	172	.46	4.7	8.5	16.2	7	37
2552	East Brady.	do.	do.	165	1.04	(1)	(1)	15.5	7	42
2696	Kittanning.	do.	do.	165	.79	4.8	8.3	16.4	9	48
3723	Templeton.	do.	do.	168	.52	5.1	7.8	14.8	6	25
4671	Apollo.	do.	do.	168	.23	6.3	6.3	15.8	6	42
2906	Freeport.	do.	Siliceous limestone.	168	.58	2.9	13.6	16.6	9	109
2716	Beaver.	do.	Limestone	168	.72	6.7	6.0	14.7	6	35
2066	Bedford.	Bedford	do.	168	.72	4.3	9.3	16.5	7	110
2752	Waterside.	do.	do.	172	.31	3.5	11.4	16.7	10	61

¹ Test not made.² Exact locality not known.

TABLE V.—*Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.*

PENNSYLVANIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
				<i>Pounds.</i>	<i>Pounds.</i>					
3851	Hyndman.....	Bedford	Limestone.....	172	.45	3.4	11.8	17.2	15	63
5602	do.....	do.	Impure limestone.....	168	.22	2.9	13.7	14.3	6	39
5603	do.....	do.	Siliceous limestone.....	168	.22	4.1	9.7	16.5	10	45
2194	Bloomfield Township.....	do.	Quartzite.....	156	1.39	4.6	17.4	17.4	9	12
2331	South Woodbury Township.....	do.	Dolomite.....	178	.83	3.4	11.9	15.8	11	24
1702	(¹).....	Berks	Quartzite.....	162	.47	2.5	15.7	(²)	(²)	7
1947	Birdsboro.....	do.	Diabase.....	184	.74	1.9	20.8	18.0	12	69
2248	Bally.....	do.	do.....	187	.45	3.9	15.0	18.2	10	52
5573	Bechtelsville.....	do.	Gabbroitic diabase.....	184	.81	3.9	10.3	18.3	12	37
5585	Birdsboro.....	do.	Diabase.....	184	.14	2.0	20.0	18.0	26	33
7414	Douglasville.....	do.	do.....	187	.40	2.4	16.8	18.8	17	66
8786	Trap Rock Station.....	do.	Altered diabase.....	187	.41	4.1	14.1	18.5	19	104
5632	Birdsboro (2½ miles south of).....	do.	Gabbroitic diabase.....	184	.59	3.2	12.5	17.9	10	36
1983	Seisholtzville.....	do.	Altered diabase.....	184	.34	3.2	19.8	18.2	21	59
5361	Reading.....	do.	Granite.....	168	.35	3.2	12.7	18.0	18	23
8243	Baro.....	do.	Hornblende granite.....	172	1.05	2.0	20.0	18.3	24	37
2033	do.....	do.	Altered diorite.....	162	.82	(³)	(²)	19.0	10	83
8242	do.....	do.	do.....	209	.71	2.3	17.1	18.7	16	50
2142	(¹).....	do.	Slate.....	167	.61	2.4	16.5	19.0	12	30
3121	(¹).....	do.	Clay slate.....	172	.54	2.6	24.4	18.4	40	35
2639	Monacaey.....	do.	Gabbro.....	168	.33	2.0	13.6	18.8	56	29
2601	do.....	do.	Altered gabbro.....	184	.67	2.4	16.4	18.6	19	72
3434	Birdsboro.....	do.	do.....	181	.75	3.9	6.8	(²)	(²)	115
3435	Birdsboro (near).....	do.	Gabbro.....	190	.37	2.2	18.2	18.2	13	14
2949	Birdsboro.....	do.	do.....	187	.47	1.5	26.7	18.6	9	31
3122	(¹).....	do.	do.....	184	.67	1.8	21.7	18.6	23	15
3167	Douglas Township.....	do.	Slag.....	125	4.26	11.8	3.4	10.7	4	44
5569	(¹).....	do.	Argillaceous sandstone.....	159	3.48	2.0	20.2	18.7	36	194
5720	Little Oley.....	do.	Sandstone.....	175	.63	2.5	16.0	17.3	38	43
3385	Reading.....	do.	Ferruginous sandstone.....	168	.43	1.6	24.7	19.2	35	34
8885	do.....	do.	do.....	156	2.34	1.8	21.7	18.2	35	36
9615	do.....	do.	Dolomite.....	168	.12	3.6	11.1	16.2	11	29
7413	Douglasville.....	do.	Argillaceous dolomite.....	168	.39	3.3	12.3	17.7	5	31
7610	Lyons.....	do.	Dolomite.....	178	.42	5.7	7.0	(²)	(²)	19
2034	Altoona (near).....	do.	Altered basalt breccia.....	168	1.12	1.4	29.4	19.3	34	27
2384	Altoona.....	do.	Weathered chert.....	156	2.66	5.4	7.4	(²)	(²)	0
			Limestone.....	168	.63	5.4	7.5	11.3	8	57
			do.....	168	.39	3.2	12.5	14.2	7	27

2406	do.	do.	168	32	2.8	14.5	16.7	11	55
2407	do.	do.	168	91	4.3	9.3	15.3	6	49
2407	do.	do.	168	46	3.6	11.2	16.7	22	55
2421	do.	do.	168	35	4.9	8.2	13.7	5	45
2432	do.	do.	168	49	3.7	10.7	17.3	20	51
2433	do.	do.	172	80	3.0	13.2	17.1	16	22
2484	do.	do.	168	10	3.2	12.5	16.5	11	47
2839	do.	do.	168	40	6.0	6.8	13.7	4	(2)
8724	do.	do.	168	45	6.0	6.8	(2)	(2)	(2)
8725	do.	do.	168	81	(2)	(2)	(2)	(2)	(2)
8722	do.	do.	165	54	2.3	17.4	18.2	11	3
1601	do.	do.	162	63	3.3	12.0	17.5	12	27
2482	do.	do.	172	34	3.3	12.0	17.2	11	35
2492	do.	do.	172	26	3.1	13.0	16.5	10	36
3745	do.	do.	178	41	3.3	12.2	16.8	10	23
2068	do.	do.	168	63	3.3	11.3	15.9	14	39
2419	do.	do.	168	64	4.3	9.4	15.2	7	50
2535	do.	do.	168	39	4.7	10.8	16.3	4	54
3080	do.	do.	168	68	3.2	9.5	15.2	8	23
3119	do.	do.	168	68	3.0	10.2	16.0	9	43
3120	do.	do.	168	84	3.0	12.7	16.7	12	32
3123	do.	do.	168	96	5.3	7.6	11.3	7	35
3212	do.	do.	162	51	4.2	9.6	15.6	8	35
3715	do.	do.	162	22	6.7	6.0	16.0	10	35
3716	do.	do.	165	32	5.3	7.6	16.8	11	40
3719	do.	do.	168	20	3.7	10.9	17.8	16	49
3802	do.	do.	168	24	3.0	12.1	17.0	13	27
7330	do.	do.	168	40	6.8	3.9	15.7	10	35
2069	do.	do.	165	86	(4)	(4)	17.2	25	31
3097	do.	do.	165	89	2.9	13.8	17.3	9	54
Wyalusing Township.	do.	do.	168	63	4.7	8.5	17.9	22	132
Rock Hill.	do.	do.	168	12	1.2	34.5	(4)	(4)	(4)
731	do.	do.	193	17	2.0	19.8	18.5	16	27
5408	do.	do.	184	33	2.0	20.0	17.5	21	58
6339	do.	do.	184	33	3.7	10.8	(2)	(2)	30
Rock Hill.	do.	do.	190	29	3.7	10.8	18.3	19	8
3200	do.	do.	187	34	2.4	16.5	18.5	22	23
Shelly.	do.	do.	187	34	2.2	17.9	(2)	(2)	(2)
5386	do.	do.	184	63	3.0	13.2	18.5	27	30
New Hope.	do.	do.	184	10	3.0	13.9	16.4	13	113
855	do.	do.	168	18	2.9	13.9	17.5	20	80
Bensalem.	do.	do.	172	13	4.1	9.8	16.0	10	69
do.	do.	do.	172	39	2.5	13.9	17.5	22	38
do.	do.	do.	172	39	2.5	13.9	18.3	47	18
do.	do.	do.	168	53	4.2	9.5	17.3	11	48
do.	do.	do.	165	1.01	2.8	14.1	17.5	26	63
do.	do.	do.	153	3.04	2.7	15.0	16.6	20	17
do.	do.	do.	168	51	3.6	11.0	18.4	12	134
do.	do.	do.	168	50	3.2	12.6	17.7	15	23
do.	do.	do.	187	43	1.7	24.1	18.6	21	15
do.	do.	do.	190	22	1.9	20.8	18.8	6	50
do.	do.	do.	168	53	3.7	10.8	16.1		

2 Test not made.

1 Exact locality not known.

TABLE V.—*Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.*

PENNSYLVANIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
				Pounds.	Pounds.					
2804	East Taylor Township	Cambria.	Calcareous sandstone.	168	.38	2.8	14.2	17.5	11	60
5221	Johnstown	do.	Limestone.	168	.33	2.8	14.4	16.8	14	26
2267	East Mauch Chunk.	Carbon.	Feldspathic quartzite.	168	.31	2.4	15.4	19.3	15	15
7424	(1)	do.	do.	165	.24	2.6	16.1	18.8	13	45
7371	(1)	do.	Slag.	143	4.90	12.2	3.3	15.3	7	25
8625	Hazard	do.	Blast furnace slag.	178	2.18	6.6	6.0	17.3	6	23
2622	Palmerston	do.	Slag.	168	3.47	12.2	3.3	15.0	8	17
6766	Bellefonte	Center.	Calcareous sandstone.	165	.75	4.5	8.9	15.3	7	36
1163	do.	do.	Limestone.	168	.31	5.8	6.9	16.3	11	27
2251	do.	do.	do.	168	.46	3.7	10.9	14.7	6	28
2431	Spring Township	do.	do.	168	.45	4.5	8.8	13.6	6	21
339	Cedar Hollow	Chester	Dolomite.	178	.16	3.8	10.6	(2)	(2)	(4)
1076	East White Hall Township	do.	do.	178	.20	4.2	9.5	14.9	7	48
3355	Exton	do.	do.	178	.48	4.2	9.6	16.3	9	25
3757	Cedar Hollow	do.	do.	178	.17	4.5	9.0	16.3	8	17
964	Coatesville	do.	Marble.	178	.16	3.8	10.5	15.9	9	77
2712	Avondale	do.	do.	172	.30	4.5	9.0	14.7	5	27
3540	Howellsville	do.	do.	175	.10	4.2	9.4	13.0	8	69
5344	Cedarville	do.	do.	172	.24	5.9	6.8	11.8	5	15
6110	Cedar Hollow	do.	Dolomite marble	175	.38	4.7	8.4	16.0	10	21
7427	(1)	do.	do.	178	.22	2.9	14.0	14.8	8	23
965	Coatesville	do.	do.	175	.22	4.7	8.5	15.4	9	21
1077	East White Hall Township	do.	Limestone.	175	.31	3.9	10.3	15.7	7	18
2710	Avondale	do.	Dolomitic limestone.	178	.41	13.2	3.0	14.0	3	32
3349	West Grove (near)	do.	Crytalline limestone.	172	.31	4.2	9.6	13.8	6	53
3746	Knickerbocker	do.	do.	172	.37	4.0	10.0	17.1	15	22
1172	St. Peters	do.	Limestone.	190	.46	1.3	20.8	18.7	17	12
1308	Spring City	do.	Gabbro	156	1.73	2.8	10.6	18.1	15	207
1333	St. Peters	do.	Feldspathic sandstone.	172	.27	5.6	7.2	18.0	27	69
1546	Coatesville	do.	do.	172	.27	3.1	12.0	16.9	8	38
2713	Avondale	do.	Normande gneiss.	190	.23	5.6	7.1	17.7	7	49
3345	Glenmore	do.	Blotie gneiss.	162	.42	3.4	11.7	18.3	15	26
6866	Dowingtown	do.	Normande gneiss.	190	.20	3.4	9.9	18.2	6	42
6949	Marcus Hook	do.	Blotie gneiss.	165	.31	4.1	9.9	18.2	13	19
9068	Dorland	do.	do.	172	.16	4.2	11.4	18.1	8	3
1682	Glenmore	do.	Sericite gneiss.	165	.17	3.5	11.4	16.5	13	16
1683	do.	do.	Altered diabase	193	.32	2.2	18.0	19.0	36	(3)
2043	do.	do.	do.	187	1.00	4.5	8.9	18.4	3	(3)
1955	Aiglen.	do.	Diabase schist.	165	.83	2.3	17.5	19.0	32	16
		do.	Quartzite schist.	165	.47	3.0	13.2	18.7	7	12

3133	Malvern.....	do	Serfotte schist.....	175	1.02	18.2	2.2	(3)	33
3424	West Grove (near).....	do	Mica schist.....	172	35	8.8	10.6	16.8	10
6924	Cornog.....	do	Hornblende schist.....	196	11	2.1	15.0	18.8	30
1957	Wawayset.....	do	Ecolite.....	196	28	2.6	15.4	18.7	14
2044	Glenmore.....	do	Altered diabase porphyry.....	187	55	1.7	23.7	19.0	33
2045	do.....	do	do.....	187	55	2.1	18.7	18.5	26
2605	Altham.....	do	Altered granite.....	168	17	1.8	21.7	18.5	(2)
2607	Aurifer.....	do	Quartzite.....	165	12	7.1	5.7	(3)	11
2711	Whitford.....	do	do.....	165	26	3.0	13.3	(3)	3
8292	do.....	do	Feldspathic quartzite.....	165	34	3.5	11.5	19.3	8
8423	Cornog.....	do	Amphibolite.....	168	17	3.2	12.6	15.6	12
6877	Dowlingtown.....	do	Altered diorite.....	187	63	2.8	14.1	17.8	8
6972	Leeper.....	do	Limestone.....	168	42	4.4	9.0	14.5	23
(1)	do.....	do	do.....	168	67	4.4	9.1	16.7	9
2687	Fryburg.....	do	do.....	168	71	4.7	8.5	15.5	6
2792	Lock Haven.....	do	do.....	168	61	4.5	8.9	13.8	8
2093	do.....	do	do.....	168	1.38	6.5	6.1	8.4	4
2094	Salona.....	do	do.....	168	42	5.6	7.1	15.0	5
2575	Lamar Township.....	do	do.....	168	21	5.0	7.9	15.9	10
3788	Salona.....	do	Argillaceous limestone.....	168	28	4.2	7.9	15.0	32
5578	Salona.....	do	Limestone.....	168	34	3.3	9.3	15.3	8
1313	Lime Ridge.....	do	Calcareous slate.....	168	33	3.6	11.0	16.3	16
6413	Berwick.....	do	Argillaceous dolomite.....	172	57	10.0	4.0	7.3	30
7807	Espy.....	do	Argillaceous dolomite.....	175	77	4.0	10.1	15.6	14
2599	Catawissa.....	do	Feldspathic sandstone.....	168	56	2.7	14.8	18.9	37
1734	West Fairview.....	do	Calcareous sandstone.....	168	31	3.6	11.1	15.7	12
(2)	do.....	do	Feldspathic sandstone.....	168	21	4.1	9.7	17.2	11
2249	do.....	do	do.....	168	50	2.9	13.7	17.4	39
3380	Fairview.....	do	Calcareous sandstone.....	172	22	4.2	9.5	17.0	29
2086	Bowmansdale.....	do	Limestone.....	168	28	4.1	9.9	17.2	66
2065	Lemoyne.....	do	do.....	172	42	3.4	11.9	17.4	46
2448	Mechanicsburg.....	do	do.....	172	24	3.3	12.2	16.1	9
6281	Dickinson Township.....	do	do.....	172	33	5.2	7.8	15.0	8
9354	Carlisle.....	do	Limestone.....	168	57	7.1	5.6	15.7	55
7034	Mechanicsburg (near).....	do	Siliceous marble.....	168	14	5.5	7.3	15.2	10
2980	Silver Spring Township.....	do	Diabase.....	187	56	1.6	18.7	18.3	28
1395	Steelton.....	do	Dolomite.....	147	29	4.2	9.4	18.0	18
2173	Harrisburg.....	Dauphin.....	do.....	172	47	4.2	9.4	18.0	13
(3)	do.....	do	do.....	175	24	2.9	13.6	17.9	12
3863	Paxtang.....	do	Siliceous dolomite.....	175	28	3.6	11.1	16.3	8
1894	Higginville.....	do	Limestone.....	172	21	3.2	12.4	17.3	14
2583	Hummelstown.....	do	do.....	168	59	3.9	10.3	13.3	56
2720	do.....	do	Dolomitic limestone.....	178	23	4.1	9.7	17.3	6
7295	do.....	do	do.....	175	46	3.7	10.9	17.7	10
(1)	do.....	do	Limestone.....	168	57	7.3	14.2	17.2	38
8306	do.....	do	do.....	168	27	5.4	7.4	15.0	2
8427	do.....	do	Diabase.....	168	15	2.3	17.1	18.2	12
2051	Londonderry Township.....	do	do.....	190	24	4.1	9.7	18.3	4
5813	Conewago (near).....	do	Gabbroitic diabase.....	190	23	2.1	19.4	18.2	17
6453	Conewago.....	do	Calcareous sandstone.....	193	43	4.2	11.3	15.2	20
2784	Harrisburg.....	do	Feldspathic sandstone.....	168	26	3.5	11.3	15.2	62
2228	Susquehanna River (west of).....	do	do.....	165	38	2.7	14.7	17.7	41

Test not made.

Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, and Cuba, complete to January 1, 1916—Contd.

PENNSYLVANIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
				Pounds.	Pounds.					
5903	Rockville.....	Dauphin.....	Sandstone.....	153	8.68	5.6	7.1	18.7	7	13
5905	do.....	do.....	Feldspathic sandstone.....	165	67	2.2	17.9	17.8	26	68
6104	Hummelstown.....	do.....	Calcareous sandstone.....	165	53	4.2	9.5	16.0	19	19
5902	Rockville.....	do.....	Quartzite.....	168	45	2.2	17.9	19.1	20	14
5901	do.....	do.....	do.....	167	37	2.4	16.7	19.3	23	22
7182	do.....	do.....	Dolomite marble.....	175	45	3.0	13.2	17.3	9	68
253	Glen Mills.....	Delaware.....	Eclogite.....	(2)	(2)	2.8	14.5	(2)	(2)	(2)
398	do.....	do.....	do.....	187	10	1.8	12.7	(2)	(2)	23
4012	do.....	do.....	do.....	193	10	1.8	22.7	(2)	(2)	23
5827	Lenni.....	do.....	Hornblende gneiss.....	181	19	2.7	14.8	18.3	10	23
7682	do.....	do.....	Blodite gneiss.....	171	20	2.8	14.3	18.6	13	14
8421	do.....	do.....	do.....	175	22	2.5	16.1	18.7	12	28
1780	Glen Mills.....	do.....	Schist.....	200	26	2.7	14.7	18.7	27	214
7751	Lausdowne.....	do.....	Hornblende schist.....	187	54	3.8	10.5	16.7	43	43
5970	Glen Mills.....	do.....	Pyroxene quartzite.....	198	15	1.9	21.1	18.3	18	22
2800	do.....	do.....	do.....	190	24	2.0	20.4	18.5	22	12
2626	do.....	do.....	Diorite.....	193	34	2.2	17.9	17.0	12	24
1354	Kersey.....	Elk.....	Limestone.....	172	11	3.8	10.7	(2)	(2)	51
5870	St. Marys (near).....	do.....	Argillaceous limestone.....	168	49	5.0	8.0	16.0	5	41
5881	Daguahachonda.....	do.....	Feldspathic sandstone.....	156	2.95	5.0	8.0	18.3	7	38
1925	Dunbar.....	Fayette.....	Limestone.....	168	26	2.3	17.1	16.7	14	60
1941	Union Town.....	do.....	do.....	168	70	4.4	9.2	13.0	5	102
1956	Farmington post office.....	do.....	do.....	168	52	4.0	10.0	15.7	8	109
1967	Humberstown post office.....	do.....	do.....	168	41	2.6	15.4	16.0	9	220
2028	Dunbar.....	do.....	do.....	168	34	2.3	17.7	17.0	9	108
2040	Somerfield (near).....	do.....	do.....	168	80	5.5	17.2	14.3	(2)	90
2041	do.....	do.....	do.....	168	65	3.1	13.1	15.9	10	67
2079	Masontown.....	do.....	do.....	168	2.42	3.9	10.4	16.5	9	76
2226	Somerfield (3 miles from).....	do.....	do.....	168	46	2.6	15.4	16.2	9	105
2228	Uniontown (7 miles from).....	do.....	do.....	168	72	5.2	7.6	13.5	5	53
2612	Connellsville (3 miles from).....	do.....	do.....	168	24	2.4	16.7	17.6	13	65
3130	Fayette City.....	do.....	do.....	168	20	2.4	7.3	16.3	4	90
3161	Brownsville (near).....	do.....	do.....	168	51	3.5	11.3	17.6	12	23
3789	Uniontown.....	do.....	Siliceous limestone.....	168	15	2.9	13.7	17.3	11	57
3806	do.....	do.....	do.....	168	32	3.4	11.9	17.8	11	37
2852	Fruits.....	do.....	Limestone.....	168	2.16	3.1	13.0	15.5	17	29
2852	Dunbar.....	do.....	do.....	168	34	3.6	11.2	16.6	7	41
2853	Dunbar Township.....	do.....	Siliceous limestone.....	168	27	2.4	16.4	17.1	15	31
2930	do.....	do.....	do.....	168	27	2.4	16.4	17.1	15	31
3692	Uniontown.....	do.....	Limestone.....	168	23	3.5	11.6	15.7	7	14

6097	Bidwell.	do.	do.	168	90	3.0	13.3	15.7	12	74
6029	Comdelsville.	do.	Siliceous limestone.	168	106	2.5	15.9	16.3	18	124
9347	do.	do.	Limestone.	168	47	3.2	12.5	17.3	15	15
9402	Uniontown (near).	do.	Siliceous limestone.	168	37	3.5	11.4	17.2	15	119
9374	do.	do.	do.	163	19	3.0	13.3	18.2	11	500+
2080	Bluestown.	do.	Sandstone.	163	14	10.1	3.9	(3)		
4025	Basestone.	do.	Calcareous sandstone.	168	20	2.6	15.6	18.0	11	46
5771	Indian Creek station.	do.	do.	168	28	3.6	12.0	17.0	17	66
2089	Waynesboro (near).	Franklin.	Siliceous limestone.	175	77	3.6	11.1	17.5	9	48
2577	Richmond Furnace.	do.	Limestone.	175	21	2.4	16.4	17.3	18	76
3142	Mercersburg.	do.	do.	175	33	4.3	9.3	15.8	9	14
2000	Gulfport.	do.	Quartzite.	162	40	3.2	9.4	19.2	9	7
3141	Montgomery Township.	do.	Dolomite.	178	52	3.2	12.6	17.9	10	24
2113	Brady Township.	Huntingdon.	Limestone.	168	41	5.0	8.0	15.5	5	87
2119	Brady Township.	do.	do.	168	52	4.1	9.8	15.3	5	69
2126	Huntingdon.	do.	do.	175	22	3.1	13.0	16.7	14	50
2211	Brady Township.	do.	do.	168	21	6.6	6.1	11.0	4	96
2212	do.	do.	do.	172	24	4.0	10.0	15.0	9	83
2215	do.	do.	do.	168	37	5.4	7.4	16.0	7	92
2243	Warriors Mark.	do.	Siliceous limestone.	175	52	2.5	15.7	18.2	14	51
2275	Mount Uniontown.	do.	Limestone.	168	62	4.2	9.5	14.4	6	81
2337	Shirley Township.	do.	do.	168	36	4.1	9.8	15.2	6	49
2341	(1)	do.	do.	168	57	3.7	10.8	15.8	6	97
2342	(1)	do.	do.	168	24	4.5	9.0	17.3	5	31
2345	Mill Creek.	do.	do.	168	94	4.8	8.3	15.2	5	81
2491	Union Furnace.	do.	do.	168	23	3.8	10.6	16.2	7	58
5337	Huntingdon.	do.	do.	168	42	4.8	8.3	15.6	7	28
7432	do.	do.	Argillaceous limestone.	172	52	(3)	6.2	16.0	4	33
2120	Brady Township.	do.	Sandstone.	(2)	(3)	6.5	(2)	18.5	5	23
2120	do.	do.	do.	(2)	(3)	(3)	(2)	16.7	7	112
2692	Huntingdon.	do.	Feldspathic sandstone.	168	42	2.2	18.3	17.5	24	24
5604	Water Street.	do.	do.	168	70	2.3	17.2	18.7	20	50
26-1	Huntingdon.	do.	do.	163	49	2.5	16.3	18.1	21	42
20-2	do.	do.	do.	163	69	3.3	12.1	18.6	14	57
2127	do.	do.	Siliceous dolomite.	168	53	3.5	9.0	(3)		
2442	Union Furnace (near)	do.	Dolomite.	178	16	3.5	11.3	16.1	11	29
2534	(1)	Indiana	Limestone.	168	66	2.7	14.7	16.8	13	75
2535	(1)	do.	Sandstone.	160	36	18.8	2.1	5.7	5	25
5495	Mifflin.	do.	Argillaceous dolomite.	172	31	4.4	9.1	16.3	9	25
1588	Seranton.	Lackawanna.	Sandstone.	162	88	2.0	20.0	17.7	15	420
2047	Dunmore.	do.	do.	162	88	2.5	16.1	18.3	9	22
2317	Glenburne.	do.	Ferruginous sandstone.	168	122	4.0	9.9	15.4	15	34
1222	West Donegal.	Lancaster.	Diabase.	190	34	2.4	16.8	18.3	18	39
1534	Eden Township.	Gabro.	do.	187	24	1.7	23.8	18.5	7	61
1688	Bart Township.	do.	Olivine diabase.	187	22	1.8	22.7	19.1	22	63
1847	Lancaster.	do.	do.	190	35	3.7	10.9	17.6	13	51
2026	Cornwall (near).	do.	Diabase.	193	28	1.9	20.8	18.3	28	14
2945	Lancaster.	do.	do.	187	30	1.8	22.5	18.7	29	14
5266	Elizabethtown.	do.	Dolomite.	193	32	1.8	21.7	17.9	32	14
5669	Strasburg Township.	do.	do.	178	45	5.0	8.0	14.3	4	20

2 Test not made.

Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

PENNSYLVANIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
1590	Refton post office.	Lancaster.	Dolomite.	Pounds. 178	Pounds. 24	3.9	10.2	11.8	9	23
1614	do.	do.	do.	178	1.14	4.7	8.4	12.7	6	45
6700	Rockville.	do.	Argillaceous dolomite.	178	.35	4.5	8.8	16.0	4	83
6283	Maytown.	do.	Limestone.	165	.33	6.0	6.7	15.8	5	46
6567	Salisbury.	do.	Siliceous limestone.	168	.37	3.7	10.7	14.3	8	67
7044	Millway.	do.	Limestone.	172	.18	3.9	10.4	16.5	9	12
7047	Rothville.	do.	do.	178	.16	4.3	9.4	16.9	10	11
7048	Litz.	do.	do.	168	.17	5.0	8.0	12.7	4	21
7809	Rheims (West Donegal Township).	do.	Marble.	181	.52	4.9	8.2	16.7	16	25
5548	Quarryville.	do.	Dolomitic marble.	168	.20	5.2	7.8	14.5	5	24
6113	Gap.	do.	do.	181	.22	7.6	5.3	12.7	4	18
6603	do.	do.	do.	181	.23	4.7	8.6	11.8	4	36
6070	do.	do.	do.	178	.30	4.8	8.3	13.6	6	41
7091	Litz.	do.	do.	172	.08	4.2	9.5	11.5	5	69
6508	Salisbury.	do.	Marble.	181	.28	13.2	2.6	(1)	(1)	89
8139	Lancaster.	do.	Calcareous schist.	172	.40	4.0	9.9	15.5	5	78
2400	Ellwood City (near).	Lawrence.	Limestone.	168	.64	4.5	8.9	(1)	(1)	42
2686	Chewton.	do.	do.	168	.39	4.4	9.1	15.8	8	19
2717	Wayne Township.	do.	do.	168	.45	3.9	10.2	16.5	8	88
4322	Rock Point (near).	do.	do.	168	.48	5.1	7.9	16.6	7	38
5557	Walford.	do.	do.	168	.25	4.9	8.2	15.5	7	26
2374	Sheridan.	do.	do.	172	.12	3.6	11.2	16.5	6	39
6532	Cornwall.	do.	Dolomitic limestone.	178	.50	4.1	9.7	13.5	8	133
6593	South Lebanon Township.	do.	Limestone.	168	.31	4.1	9.8	12.9	6	131
6682	Lebanon.	do.	Argillaceous limestone.	168	.34	4.3	9.3	16.1	9	48
6887	do.	do.	Siliceous limestone.	172	.20	3.8	10.5	15.8	3	50
7540	do.	do.	do.	169	.20	4.3	9.3	15.8	3	44
7653	do.	do.	Argillaceous limestone.	172	.17	3.2	12.5	14.7	7	42
6532	Annville.	do.	Carbonaceous dolomite.	175	.83	2.9	13.6	17.0	7	65
6612	Lebanon.	do.	Dolomite.	175	.48	3.7	10.9	17.6	20	76
1207	Vera Cruz.	Lehigh.	Gneiss.	172	.46	(1)	(1)	18.6	14	16
1092	Allentown.	do.	Dolomite.	175	.07	6.9	5.8	18.6	20	16
6327	Catasqua.	do.	Argillaceous dolomite.	175	.17	2.4	16.7	(1)	(1)	26
2652	Vera Cruz.	do.	Syenite.	172	.36	2.3	17.7	18.3	16	19
697	Wilkes-Barre.	do.	Sandstone.	168	.46	2.4	11.6	(1)	(1)	202
1074	do.	Luzerne.	Feldspathic sandstone.	168	.32	2.8	14.2	18.6	37	34
1114	Conyngham.	do.	do.	165	.37	2.8	22.9	17.0	23	55
1306	Hazleton.	do.	Sandstone.	165	1.60	3.3	12.1	13.6	10	283
1695	do.	do.	do.	168	1.12	3.7	10.9	15.7	13	41

1574	White Haven.	do.	do.	do.	165	32	1.0	40.8	23
2903	Wilkes-Barre...	do.	Feldspathic sandstone.	do.	168	44	2.3	17.7	23
2577	Lehigh Tannery	do.	do.	do.	168	11	2.0	18.8	82
6305	Duylia Borough	do.	Calcareous sandstone.	do.	168	46	2.4	20.4	37
6308	Pittston (near)	do.	do.	do.	165	55	2.0	16.3	10
7089	Wapwallopen	do.	Feldspathic sandstone.	do.	168	31	1.7	13.3	12
7681	Pittston	do.	Calcareous sandstone.	do.	168	35	3.0	23.0	33
8506	Wilkes-Barre	do.	Feldspathic sandstone.	do.	165	42	2.9	18.6	7
1075	do.	do.	Slate	do.	172	49	2.2	13.4	11
1252	do.	do.	Feldspathic quartzite	do.	168	18	(1)	19.2	17
1278	White Haven.	do.	do.	do.	168	15	1.8	18.0	22
7679	do.	do.	do.	do.	168	15	2.1	18.0	26
914	Lycoming	do.	Sandstone.	do.	165	40	1.9	22.6	13
1653	Coganhouse Township	do.	Calcareous sandstone.	do.	162	2.00	2.9	18.6	16
3783	Platt Township	do.	Sandstone.	do.	165	1.09	4.8	21.0	22
4055	Williamsport	do.	Feldspathic sandstone.	do.	162	75	3.3	13.6	33
4036	do.	do.	do.	do.	162	2.12	(1)	16.4	81
4037	do.	do.	do.	do.	162	2.46	(1)	8.4	50
4735	Larryville	do.	do.	do.	162	2.13	(1)	17.7	20
5721	Hughesville	do.	do.	do.	162	1.10	4.6	13.7	9
7445	Picture Rocks.	do.	Argillaceous sandstone	do.	168	80	3.3	12.3	8
1103	Williamsport.	do.	Feldspathic sandstone.	do.	162	1.72	2.6	18.2	22
1139	do.	do.	Shale.	do.	172	87	(1)	12.3	13
1161	do.	do.	Limestone.	do.	168	36	7.4	19.2	19
1164	Porter Township.	do.	do.	do.	168	24	5.8	13.9	3
1279	Montgomery (near).	do.	do.	do.	168	58	4.6	16.4	8
1872	Jersey Shore.	do.	do.	do.	172	78	4.9	6.8	60
2751	do.	do.	do.	do.	172	38	4.1	16.2	8
3868	Williamsport.	do.	do.	do.	168	(1)	5.1	8.8	9
6153	Porter Township.	do.	Argillaceous limestone	do.	168	40	4.8	17.3	10
6154	do.	do.	do.	do.	165	58	3.8	7.8	8
6155	do.	do.	do.	do.	168	56	4.2	8.3	16
6156	do.	do.	do.	do.	172	1.26	5.4	10.6	33
6157	do.	do.	Limestone.	do.	172	44	7.4	18.0	22
6158	do.	do.	do.	do.	168	43	4.6	17.3	21
6691	Lower Fairfield	do.	do.	do.	178	65	3.0	7.4	14
6880	Muncy Township	do.	do.	do.	168	18	3.2	8.6	42
7322	do.	do.	Siliceous limestone	do.	168	65	4.7	16.5	8
7453	Loyalsock Township	do.	Limestone.	do.	172	22	6.0	12.8	7
1191	Newberry	do.	Carbonaceous limestone.	do.	168	47	7.4	14.7	8
1192	do.	do.	Dipbase.	do.	190	1.47	4.1	13.7	6
7477	Montourville	do.	do.	do.	190	25	(1)	5.4	82
7478	do.	do.	Calcareous chert.	do.	190	19	(1)	9.8	8
6813	Linden	do.	do.	do.	165	86	4.9	18.9	31
2224	Sharpville	do.	Dolomite.	do.	175	51	5.4	18.7	79
2531	Nagmeyer	do.	Blas-turruce slag	do.	136	4.32	19.1	13.3	54
4396	Reedville	do.	Limestone.	do.	168	38	4.9	14.5	3
3224	Milroy	do.	do.	do.	165	83	5.5	13.0	10
8653	Lewistown	do.	Siliceous limestone	do.	172	42	3.0	11.9	4
5438	do.	do.	Limestone.	do.	168	29	4.1	17.0	31
(2)	do.	do.	Argillaceous limestone.	do.	168	35	2.3	9.7	25
			Sandstone.	do.	165	32	4.1	16.8	7
								17.4	56
								9.8	3

* Exact locality not known.

1 Test not made.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

PENNSYLVANIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
				Pounds.	Pounds.					
1359	Tobyhanna.....	Monroe.....	Feldspathic sandstone.....	168	.25	3.7	10.8	18.4	19	30
1816	Smithfield.....	do.....	Calcareous slate.....	168	.33	3.9	10.3	15.0	14	60
365	Hatboro.....	Montgomery.....	Ferruginous sandstone.....	165	.83	3.3	10.7	(1)	(1)	(1)
2322	Bridgeport.....	do.....	Feldspathic sandstone.....	159	1.32	3.1	12.0	19.4	14	253
2684	Green Lane.....	do.....	Calcareous sandstone.....	168	1.85	2.0	20.4	18.7	23	22
5132	Salford.....	do.....	Argillaceous sandstone.....	172	1.22	2.2	17.9	15.8	6	23
6885	Phoenixville (near).....	do.....	Feldspathic sandstone.....	181	1.34	2.0	19.6	18.8	44	52
7920	Linfield.....	do.....	Ferruginous sandstone.....	156	2.53	3.0	13.2	18.5	9	131
1037	Green Lane.....	do.....	Slate.....	172	.68	2.6	15.2	17.5	17	179
1835	Pracchia Township.....	do.....	do.....	168	.24	2.5	15.9	16.5	6	211
2039	Hendricks Station.....	do.....	Calcareous slate.....	165	1.21	2.2	17.9	16.4	8	83
2049	Green Lane.....	do.....	Inturated slate.....	108	.75	1.7	23.5	18.9	40	23
2172	do.....	do.....	Slate.....	175	.59	2.6	15.5	13.4	10	59
2624	Ambler.....	do.....	do.....	175	.73	4.5	8.8	16.2	6	96
2683	Green Lane.....	do.....	do.....	172	.21	2.1	19.0	18.6	38	20
5080	Sumneytown.....	do.....	do.....	172	.21	2.6	15.4	18.7	24	20
5197	Green Lane.....	do.....	Siliceous slate.....	172	.57	2.9	13.6	18.9	52	34
6459	Pottstown.....	do.....	do.....	172	.76	2.1	19.4	18.5	13	85
6460	do.....	do.....	do.....	172	.75	2.1	18.9	18.3	13	61
6639	Lower Gwynedd.....	do.....	Slate.....	168	1.24	2.7	15.0	13.5	17	65
7069	Upper Salford Township.....	do.....	Siliceous slate.....	171	1.37	4.4	9.0	18.2	11	31
8728	Green Lane.....	do.....	Micaceous slate.....	172	.42	3.0	19.5	17.5	17	29
6638	White Marsh Township.....	do.....	Feldspathic quartzite.....	162	.74	3.3	12.0	18.9	19	2
1316	Port Kennedy.....	do.....	Diabase.....	181	.26	2.8	14.5	(1)	(1)	186
2558	Green Lane.....	do.....	do.....	193	.31	2.7	14.9	17.1	8	17
2682	do.....	do.....	Altered diabase.....	181	.28	1.6	25.0	18.5	40	48
2760	do.....	do.....	Diabase.....	187	.42	1.4	28.6	18.5	33	45
1315	do.....	do.....	do.....	178	.22	4.2	9.5	14.7	11	13
2021	Ivory Rock (Plymouth Township).....	do.....	Dolomite.....	175	.82	4.1	9.9	14.7	8	57
2092	Green Lane.....	do.....	do.....	190	.34	2.5	15.8	17.5	12	15
2261	Paper Mills Station.....	do.....	Pyroxene granolite.....	193	.16	2.7	14.6	19.2	14	32
8050	Bryn Athyn.....	do.....	Aplicite granite.....	165	.22	4.6	8.7	19.0	6	17
8689	Pencord.....	do.....	Granite.....	175	.92	(1)	(1)	18.3	12	13
2274	Conshohocken (near).....	do.....	Limestone.....	153	.53	4.2	9.6	16.0	8	21
3106	Pottstown.....	do.....	Siliceous limestone.....	178	.80	3.0	13.4	17.2	14	30
8114	Norristown.....	do.....	do.....	165	.50	3.4	11.6	17.4	10	46
4601	Bethayres.....	do.....	Gneiss.....	175	.92	4.8	8.3	18.7	17	59
7553	Huntingdon Valley.....	do.....	Granite gneiss.....	168	.16	5.1	7.8	18.8	20	9

8418	do.	do.	165	34	19.3	15
8783	Pencoyd...	do.	165	32	11.7	19
8783	Port Kennedy...	do.	168	32	2.6	17
6024	Norristown (near)	Dolomitic marble.	178	26	6.3	9
7413	Norristown...	do.	178	26	4.3	5
8008	do.	do.	178	32	3.0	44
8087	Plymouth Meeting...	do.	178	21	9.9	32
8212	do.	do.	178	21	7.3	33
8213	Plymouth Township...	do.	178	22	3.5	33
8213	do.	do.	178	22	4.0	6
7967	Conshohocken...	do.	178	22	10.0	8
8211	Portstown...	Schistose quartzite.	162	39	11.1	34
6665	Fort Washington...	Siliceous slate.	168	29	15.8	9
6862	do.	Quartzite schist.	165	19	17.0	2
6926	West Moreland Township...	Eclogite.	184	36	19.3	29
9448	Bryn Athyn...	do.	184	19	20.0	11
1879	Danville...	do.	184	19	9.0	56
352	Along Delaware River...	Chert.	184	19	14.5	19
1508	Easton...	do.	184	19	18.4	19
730	Redington...	do.	184	19	2.6	15
1223	Nazareth...	do.	184	13	15.4	16
2014	Easton...	do.	184	13	12.1	15
2186	Bath...	do.	184	13	19.3	16
3322	Slegfield...	do.	184	13	46	7
3323	do.	do.	181	30	17.8	(1)
1032	Easton...	Diorite.	187	30	14.3	(1)
2240	Nazareth...	Altered diorite.	187	30	2.8	15
8333	Easton...	Dolomite.	181	08	1.9	21
8494	do.	do.	181	08	21.3	(1)
11105	De Wart...	do.	175	22	7.3	(1)
11162	Turboville...	do.	175	22	16.9	27
11165	De Wart...	do.	175	26	17.4	27
11998	do.	Siliceous dolomite.	175	10	11.2	17
2014	Bath...	Dolomite.	175	30	19.2	51
3322	Slegfield...	do.	175	30	2.1	13
3323	do.	do.	175	30	2.5	19
1032	Easton...	do.	175	23	15.7	11
2240	Nazareth...	do.	178	21	17.4	38
8333	Easton...	Limestone.	178	21	14.5	79
8494	do.	Argillaceous limestone.	178	21	11.3	39
11105	De Wart...	Slate.	172	25	9.5	29
11162	Turboville...	Blast-furnace slag.	172	25	10.9	9
11165	De Wart...	do.	178	87	5.1	28
11998	do.	Limestone.	181	08	17.6	28
2014	Bath...	do.	165	40	17.5	10
3322	Slegfield...	do.	165	40	12.9	26
3323	do.	do.	168	49	10.6	93
1032	Easton...	do.	168	49	6.5	93
2240	Nazareth...	do.	168	49	17.0	8
8333	Easton...	do.	168	36	8.7	79
8494	do.	do.	172	32	15.5	50
11105	De Wart...	do.	168	82	12.2	7
11162	Turboville...	Siliceous limestone.	139	2.01	14.7	58
11165	De Wart...	Limestone.	165	40	6.0	28
11998	do.	Sandstone.	165	40	10.0	24
2014	Bath...	Feldspathic sandstone.	165	49	4.0	9
3322	Slegfield...	do.	165	49	16.6	30
3323	do.	do.	165	49	15.8	50
1032	Easton...	do.	165	31	1.7	59
2240	Nazareth...	Feldspathic sandstone.	165	24	13.5	59
8333	Easton...	do.	165	50	18.0	45
8494	do.	do.	165	50	19.0	33
11105	De Wart...	Indurated sandstone.	165	49	14.0	21
11162	Turboville...	Sandstone.	165	49	15.9	174
11165	De Wart...	Feldspathic sandstone.	165	49	17.9	15
11998	do.	do.	165	78	18.0	97
2014	Bath...	do.	165	78	30.8	76
3322	Slegfield...	do.	162	98	18.2	11
3323	do.	do.	162	98	20.2	80
1032	Easton...	do.	165	34	19.0	60
2240	Nazareth...	do.	165	34	23.5	60
8333	Easton...	do.	162	93	18.7	26
8494	do.	do.	165	33	18.3	32
11105	De Wart...	do.	165	53	16.1	28
11162	Turboville...	do.	165	53	16.1	48
11165	De Wart...	do.	165	53	15.5	28
11998	do.	Dolomite.	178	40	17.6	13
2014	Bath...	do.	168	7.9	(1)	(1)
3322	Slegfield...	do.	168	5.1	6.3	(1)
3323	do.	do.	172	5.0	8.0	8
1032	Easton...	Marble.	172	59	13.5	41
2240	Nazareth...	do.	172	59	8.0	11

¹ Test not made.

² Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, and Cuba, complete to January 1, 1916—Contd.

PENNSYLVANIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
				Pounds.	Pounds.	(¹)	(¹)			(¹)
5633	Philadelphia.	Philadelphia.	Argillaceous sandstone.	181	21	3.8	10.5	15.8	15	15
6896	Frankford.	do.	Hornblende gneiss.	168	91	5.2	7.8	16.8	6	15
2832	Greentown.	Pike.	Feldspathic sandstone.	165	74	3.2	12.7	17.7	8	36
2833	do.	do.	do.	159	3.16	6.5	6.2	11.7	9	28
4392	Portage Township.	Potter.	Sandstone.	168	61	5.4	7.4	15.0	6	78
2210	Sittler.	Schuylkill.	Calcareous shale.	168	75	2.3	17.7	17.7	8	201
2299	Ringtown.	do.	Feldspathic sandstone.	168	42	2.4	16.5	17.8	15	57
6630	Ancheys Station.	do.	do.	168	16.7	2.4	16.7	17.8	32	64
6657	Summit Station.	do.	do.	168	50	2.4	16.7	17.8	9	97
6721	Roeders Station.	do.	Sandstone.	162	80	6.7	6.0	17.9	6	26
7179	do.	do.	do.	162	75	6.4	6.2	18.0	6	(¹)
7310	do.	do.	Feldspathic sandstone.	168	77	2.7	14.9	15.0	11	96
4814	Port Clinton.	do.	Quartzite.	162	41	2.2	18.6	19.3	20	14
6556	Roeders Station.	do.	Slate.	172	41	4.0	10.0	12.3	28	69
2009	Somersfield.	do.	Limestone.	168	64	3.4	11.8	15.7	14	105
2036	do.	do.	do.	168	53	4.3	9.3	14.0	6	65
2052	Point Township.	do.	Impure limestone.	178	27	3.5	11.5	16.9	15	193
8925	Bostell.	do.	Limestone.	168	1.05	4.4	9.1	17.3	10	12
8926	do.	do.	Argillaceous limestone.	172	39	4.9	8.1	17.0	14	15
3243	McSpedden.	do.	Shaleous limestone.	168	58	2.5	16.0	18.2	11	16
3246	Cooley Township.	do.	Conglomeratic sandstone.	165	1.36	7.0	5.7	15.7	8	28
3829	Brooklyn.	Sullivan.	Sandstone.	165	1.42	5.0	8.1	13.0	11	25
3830	do.	do.	do.	165	1.47	3.1	7.8	12.3	10	28
4065	do.	do.	do.	163	1.81	3.8	8.5	11.7	8	53
6059	Susquehanna.	do.	Limestone.	168	30	2.8	10.5	13.0	6	127
1516	Mansfield.	do.	Shaleous limestone.	168	36	3.0	8.0	12.5	5	154
2425	Wellsboro.	do.	Limestone.	165	1.15	4.7	8.5	16.7	12	35
1883	do.	do.	Sandstone.	165	1.64	3.0	13.2	12.0	13	105
2827	Duncan Township.	do.	Calcareous sandstone.	172	40	4.2	9.6	16.3	13	94
3961	Delmar.	do.	do.	168	78	3.3	12.1	16.3	7	39
3732	Wellsboro.	do.	Argillaceous sandstone.	168	47	3.4	7.4	17.5	25	28
3784	Richmond Township.	do.	Sandstone.	165	38	3.5	11.4	19.0	10	18
3834	Charleston Township.	do.	Calcareous sandstone.	168	86	3.6	11.0	16.3	26	10
3945	do.	do.	Sandstone.	159	2.81	4.3	9.2	6.0	10	51
4077	do.	do.	Calcareous sandstone.	168	43	2.5	15.9	16.5	19	64
1644	Lewisburg.	Union.	Limestone.	168	1.23	4.5	9.0	14.7	5	89
2134	do.	do.	do.	168	81	3.9	10.4	15.7	4	78
2788	do.	do.	do.	168	73	4.9	8.2	14.8	5	23

1582	Mifflinburg.....do.....	Argillaceous limestone.	168	.19	5.5	7.2	14.8	8	27
1583	.....do.....	Limestone.	168	.39	5.3	7.5	15.6	6	21
1584	Windfield.....do.....	Slag	168	.47	3.4	11.6	17.7	12	21
2536	Allenwood.....do.....	Clay shale	168	1.73	11.8	3.4	0	3	54
6761	Venango.....do.....	Argillaceous sandstone	150	4.69	4.5	8.8	(¹)	7	33
23262	Franklin (near).....do.....	Feldspathic sandstone.	159	2.73	(¹)			8	58
11185	Warren.....do.....	do	159	2.60	3.6	11.2	5.8	9	48
2604	.....do.....	do	159					8	48
3707	Washington.....do.....	Argillaceous limestone.	168	.73	2.8	14.1	16.5	12	35
2613	.....do.....	Dolomitic limestone.	168	.95	2.6	15.2	16.8	14	29
3708	Monongahela.....do.....	Limestone.	172	.24	4.0	10.0	15.8	12	45
3707	.....do.....	do	162	3.19	3.3	12.0	16.3	16	54
2604	Wayne.....do.....	Feldspathic sandstone.	165	1.50	3.8	12.0	14.0	8	38
2327	Buckenhams.....do.....	Ferruginous sandstone.	168	1.30	3.8	10.4	12.5	10	55
2270	.....do.....	Feldspathic sandstone.	168	.56	2.7	14.6	17.4	9	29
2911	Steele Station (near).....do.....	Conglomeratic sandstone.	156	3.22	11.0	3.6	0	4	4
660A	Buckenhams.....do.....	do	175	1.21	6.7	5.9	15.3	7	23
6613	.....do.....	do	168	.32	3.4	11.9	17.8	12	45
5830	Prompton.....do.....	Feldspathic sandstone.	168	1.01	3.7	10.8	16.9	10	43
2481	Greensburg.....do.....	Limestone.	165	1.01	4.9	8.2	16.7	8	50
2533	North Huntingdon.....do.....	do	172	.96	3.2	12.3	17.0	13	44
2750	McKeesport (near).....do.....	do	168	.37	4.2	9.5	16.9	8	30
2879	Mount Pleasant.....do.....	Siliceous limestone.	108	1.24	3.8	10.5	14.1	12	16
4877	Sewickley Township.....do.....	Limestone.	172	.36	4.5	8.9	14.3	11	11
4878	.....do.....	Siliceous limestone.	168	.41	2.1	19.2	17.2	19	19
5605	Blairsville-Intersection.....do.....	do	168	.33	2.3	17.5	16.7	8	64
7900	.....do.....	do	168	.16	2.6	15.3	17.3	8	53
8911	Ligonier.....do.....	Diabase.	187	.26	(¹)			39	43
1123	West Donegal.....do.....	do	165	1.64	3.6	11.0	18.2	11	33
1258	Saltsburg.....do.....	Calcareous sandstone.	159	2.91	2.7	14.8	13.3	9	124
2055	Loyalhanna Township.....do.....	Feldspathic sandstone.	168	1.49	3.8	10.6	16.0	10	28
1873	Nicholson.....do.....	do	162	.66	3.7	10.9	19.0	9	1
3191	Scranton.....do.....	Sandstone.	165	1.33	4.8	8.4	14.6	12	23
5388	Lackawanna.....do.....	do	184	.34	3.2	17.5	17.5	14	21
1209	Black Walnut.....do.....	Gabiro.	187	.91	2.2	12.4	17.7	12	16
2299	Marsh Run Township.....do.....	do	190	.34	2.2	12.4	17.7	12	12
(²)	.....do.....	do	190	.10	2.0	15.6	18.3	15	15
2100	York Haven.....do.....	Diabase.	190	.30	2.0	19.8	(¹)	15	15
3410	York.....do.....	do	187	.35	1.8	21.7	18.3	22	64
1366	York.....do.....	do	187	.07	2.5	15.9	18.5	16	40
1694	Carroll Township.....do.....	do	193	.41	2.2	17.9	19.1	26	34
1695	Warrington Township.....do.....	do	187	.41	2.2	10.3	18.8	25	22
2937	Dillsburg (near).....do.....	do	187	.39	3.0	11.2	13.9	8	14
7458	York.....do.....	do	172	.83	3.6	11.2	13.7	15	9
1691	.....do.....	Micaceous sandstone.	173	.53	2.4	16.4	(¹)	13	13
1095	Warrington Township.....do.....	Indurated sandstone.	143	4.62	12.8	3.1	16.6	10	86
1948	Hanover.....do.....	Sandstone.	150	4.32	6.5	6.2	11.0	8	500+
2936	Dillsburg (near).....do.....	Feldspathic sandstone.	147	4.46	13.4	6.2	3.0	6	19
2938	.....do.....	Ferruginous sandstone.	165	.20	3.6	15.9	19.3	7	19
1866	Hanover.....do.....	Quartzite.	159	.94	3.6	11.1	18.7	9	11
7330	York.....do.....	do	162	.68	4.1	9.8	19.3	22	26
9666	.....do.....	do	178	.67	2.8	14.3	18.9	11	21
2135	Wellsville Borough.....do.....	Epidoisie.	256	4.36	18.3	17.6	(¹)	11	21
2562	Washington Township.....do.....	Hematite.	178	.37	3.2	12.5	17.6	(¹)	26
2762	Spring Forge.....do.....	Limestone.	178						

1 Test not made.

2 Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

PENNSYLVANIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Compressive value.
2948	York	York	Limestone	Pounds. 172	Pounds. 32	4.5	8.9	14.0	5	53
4706	York (near)	do.	do.	168	19	5.8	6.8	8.8	6	24
5780	West York	do.	do.	168	48	4.3	9.3	14.3	3	36
5781	York	do.	Argillaceous limestone	175	29	2.8	14.2	16.2	28	35
5782	Bellevue	do.	Crystalline limestone	172	18	3.1	13.1	17.7	7	41
5783	York	do.	do.	172	19	3.1	12.9	14.8	9	18
5784	do.	do.	do.	168	44	4.8	8.3	14.8	7	36
7049	do.	do.	Limestone	178	22	3.9	10.3	17.1	6	26
7050	do.	do.	do.	172	15	5.7	7.0	9.0	4	20
7051	do.	do.	do.	175	30	6.1	6.5	15.6	5	60
4097	Glen Rock	do.	Crystalline limestone	181	37	6.8	5.9	12.3	6	31
4106	Farm Grove	do.	Chlorite epidote schist	193	43	2.8	14.3	18.4	16	23
5778	Emigsville	do.	Hornblende chlorite schist	175	15	4.6	8.6	14.3	7	39
5779	Wrightsville	do.	Dolomite marble	175	14	2.6	15.3	17.1	13	39
7428	York	do.	do.	178	19	3.4	11.8	15.3	9	20
7457	Hanover	do.	Siliceous marble	168	49	4.3	9.3	15.8	7	70
9067	York	do.	Dolomite marble	178	16	8.2	4.9	14.2	5	44
7790	Hanover	do.	Siliceous dolomite	178	16	4.0	10.0	17.7	12	28
4708	Blue Mountain	(1)	Serpentine	165	19	4.7	8.5	15.0	11	83
7431	(1)	(1)	Carbonaceous limestone	168	31	5.0	7.9	16.3	5	54

RHODE ISLAND.

886	Bristol	Bristol	Chloritic quartzite	172	0.45	4.7	8.5	18.9	10	22
889	do.	do.	Gneiss and granite	168	28	2.8	14.3	18.0	10	53
890	Warrent	do.	Chloritic sandstone	168	38	2.7	15.0	15.3	24	12
891	East Greenwich	Kent	Biotite gneiss	168	15	2.6	15.1	18.8	20	59
1818	Warwick	do.	Mica schist	165	74	3.8	10.6	17.5	6	9
1821	do.	do.	Mica quartzite	172	59	3.9	10.4	18.7	4	27
302	Middletown	Newport	Quartzite	(2)	(2)	3.1	12.8	(2)	(2)	(2)
896	do.	do.	do.	175	27	2.8	14.4	16.2	15	12
1019	Newport	do.	Granite	162	59	3.0	13.5	18.7	15	53
1020	Portsmouth	do.	Arkose gneiss	181	25	4.2	9.6	15.4	10	33
1817	Jamestown	do.	Metamorphic sandstone	168	59	4.8	8.3	18.3	16	17
1822	Portsmouth	do.	Feldspathic sandstone	168	59	4.8	16.8	16.7	15	15
14	Cumberland	Providence	Peridotite	225	(2)	4.2	9.4	(2)	(2)	(2)

1022	do.	Altered peridotite.	221	.27	4.3	9.3	15.0	12	30
42	do.	Quartzite.	(1)	(2)	4.4	9.1	(2)	(2)	(2)
888	North Providence.	Mica quartzite.	172	.40	2.6	13.5	16.5	21	25
884	Cranston.	Feldspathic quartzite.	172	.06	3.2	12.5	17.6	21	33
1018	Cumberland.	Quartzite breccia.	162	.69	2.9	14.0	(2)	(2)	13
5589	do.	Quartzite.	162	.47	4.4	9.0	19.3	16	5
659	Providence.	Augite diorite.	187	.18	1.9	20.6	(2)	(2)	23
887	Cranston.	Granite.	175	.19	3.4	11.9	19.1	10	39
893	Johnston.	Gneissoid granite.	162	.25	2.2	18.2	18.5	12	12
895	Smithfield.	Granite.	162	.19	3.7	10.8	(2)	(2)	18
1017	Cumberland.	Hornblende granite.	175	.26	1.6	25.6	17.9	12	29
9242	Smithfield.	Gneissoid granite.	165	.45	3.0	13.3	18.3	6	18
892	East Providence.	Indurated sandstone.	168	.31	3.0	13.4	19.1	7	11
897	Johnston.	Amphibolite.	193	.17	2.8	14.2	19.0	9	11
6827	do.	do.	187	.38	1.8	21.7	18.6	26	13
1819	do.	Hornblende schist.	184	.75	3.0	13.2	18.3	10	32
1820	East Providence.	Chlorite gneiss.	175	.46	4.6	8.6	15.7	8	17
5023	Cranston.	Sericite gneiss.	165	.31	4.6	8.6	17.8	9	26
1021	Westerly.	Granite.	165	.65	2.4	16.6	17.7	12	25
1213	South Kingston.	do.	162	.43	5.2	7.7	15.8	4	11
1259	Westerly.	do.	165	.31	2.8	14.1	18.1	11	15
1260	do.	do.	165	.52	2.2	18.5	18.2	9	22
8867	do.	do.	165	(2)	4.0	10.0	(2)	6	(2)
8878	do.	do.	165	(2)	2.9	13.8	(2)	12	(2)
8869	do.	do.	165	(3)	3.5	11.6	(3)	11	(3)

SOUTH CAROLINA.

783	Abbeville.	Chert.	162	1.19	22.1	1.8	(2)	(2)	11
3451	do.	do.	165	.35	9.1	4.4	(2)	(2)	6
6490	do.	Muscovite granite.	165	.57	4.5	8.5	17.2	9	14
6491	do.	Altered muscovite granite.	159	.22	18.2	2.2	0.0	3	24
6493	do.	Gneissoid granite.	165	.32	3.8	10.5	18.0	6	12
6492	do.	Granite gneiss.	175	.64	13.2	3.0	14.1	6	32
2545	Belton.	Ferruginous sandstone.	200	5.09	10.3	7.5	(2)	(2)	49
8389	Williamston.	Granite.	165	.60	5.3	7.5	18.3	6	26
1758	Gaffney.	Limestone.	172	.11	5.7	7.0	8.7	8	44
2386	Blairs.	Granite.	165	.28	3.2	12.7	18.9	9	19
5568	Rhon.	do.	168	.18	2.6	15.2	18.3	14	12
5586-1	do.	Piotite granite.	(2)	(2)	(3)	(3)	18.5	11	(2)
3893	Greenville.	Granite.	165	.22	5.0	8.1	18.2	9	4
4725	(1)	Gneissoid granite.	172	.33	5.1	7.9	(3)	(2)	15
3759	Lancaster.	Altered rhyolite.	168	.16	2.1	12.8	18.9	10	13
1449	Batesburg.	Gneissoid granite.	162	.51	2.4	16.7	18.8	21	16
2024	Oconee.	Marble.	168	.81	5.5	7.3	7.9	5	79
3923	Beverly.	Granite gneiss.	172	.28	5.5	7.2	17.7	6	21
4008	Columbia.	Granite.	168	.47	3.5	11.4	17.8	13	18
374	do.	do.	163	.17	2.9	13.9	(2)	(2)	(2)

¹ Exact locality not known.² Test not made.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

SOUTH CAROLINA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
375	Pacolet.....		Granite.....	Pounds.	Pounds.	1.9	20.9	(1)	(1)	(1)
1063	Spartanburg.....	Spartanburg.	do.....	165	17	2.1	19.2	18.2	10	20
1737	Pacolet.....	do.....	do.....	172	48	3.3	19.8	17.7	15	14
1079	Spartanburg.....	do.....	Syenite.....	165	33	4.1	16.9	18.4	10	20
2110	do.....	do.....	Blotite gneiss.....	168	40	3.8	10.6	15.6	7	28
1217	Union.....	Union.....	Granite.....	175	25	5.6	7.1	17.2	9	20
				168	27					

SOUTH DAKOTA.

2106	Lead.....	Lawrence.....	Altered diorite.....	168	0.28	2.2	17.9	17.3	15	67
2107	do.....	do.....	Granite porphyry.....	162	.73	3.9	14.0	17.5	10	95
2108	do.....	do.....	Altered rhyolite.....	147	4.56	3.8	10.4	15.8	16	500+
3372	do.....	do.....	Limestone.....	168	.21	5.6	7.2	15.6	5	61
3373	do.....	do.....	Sandstone.....	162	.44	3.2	12.5	19.0	10	0
3374	do.....	do.....	Dolomite.....	172	1.01	5.2	7.7	16.3	9	22
3375	do.....	do.....	Weathered chert.....	150	4.08	2.2	12.4	(1)	(1)	500+
449	Rowena.....	Minnehaha.....	Quartzite.....	165	.15	2.8	14.2	(1)	(1)	(1)
5582	Rapid City.....	Pennington.....	Marble.....	168	1.14	4.2	10.0	14.4	4	35
5584	do.....	do.....	Dolomite.....	162	1.84	4.2	9.6	16.8	4	24
5672	do.....	do.....	Feldspathic quartzite.....	168	.21	2.4	16.7	19.0	25	24

TENNESSEE.

2104	Clinton.....	Anderson.....	Feldspathic limestone.....	165	0.84	2.7	14.9	16.5	11	76
2367	Camden.....	Benton.....	Chert.....	140	2.63	(1)	12.1	19.2	9	36
4333	Etizabehon.....	Carier.....	Argillaceous limestone.....	172	.25	3.3	8.1	17.7	18	31
5597	Quarry.....	do.....	Limestone.....	168	.34	4.4	9.8	16.9	9	64
9223	Watauga Point.....	do.....	Dolomite.....	178	.26	4.1	10.2	(1)	17	17
1325	Cumberland Gap.....	Claborn.....	Limestone.....	172	.24	3.9	10.4	15.8	10	76
1326	do.....	do.....	do.....	168	.31	3.8	8.0	(1)	(1)	39
376	Nashville.....	Davidson.....	do.....	168	.15	5.0	8.0	(1)	(1)	(1)
377	do.....	do.....	do.....	168	.20	5.2	7.7	(1)	(1)	(1)
378	do.....	do.....	do.....	168	1.87	5.8	6.7	(1)	(1)	(1)
379	do.....	do.....	do.....	153	3.08	15.1	2.6	(1)	(1)	(1)
6557	do.....	do.....	do.....	168	.90	3.5	11.3	10.4	6	80

9667	do.	do.	168	39	4.5	8.9	15.5	8	41
9668	do.	do.	168	2.19	7.3	3.5	9.0	4	34
9669	do.	do.	172	.36	4.5	8.9	16.0	6	45
1407	Perryville	do.	139	.95	4.2	9.5	13.8	7	41
8109	Charlotte	do.	165	(1)	5.6	6.2	14.5	5	65
8110	do.	Crystalline limestone	162	1.04	6.4	7.1	13.1	4	78
8111	do.	Limestone	156	3.10	5.1	7.9	16.3	3	72
8112	do.	Argillaceous limestone	159	.25	7.3	5.5	17.1	5	48
8113	do.	do.	153	6.50	8.5	4.7	18.0	4	36
448	Chattanooga	Dolomitic limestone	168	.27	2.8	14.2	(1)	(1)	(1)
503	do.	Limestone	168	1.10	4.0	10.0	(1)	(1)	(1)
8865	do.	do.	172	.28	(1)	(1)	15.5	4	29
8384	Paris (10 miles north of)	Sandstone	(1)	4.75	3.6	11.1	18.8	10	10
336	Hickman	Ferruginous sandstone	168	2.54	11.5	3.5	(1)	(1)	(1)
337	do.	Siliceous limestone	175	.75	6.8	5.9	(1)	(1)	(1)
361	do.	do.	175	2.29	7.8	5.2	(1)	(1)	(1)
359	do.	Limestone	193	3.29	7.9	5.1	(1)	(1)	(1)
338	do.	Schist	156	1.72	4.4	9.2	(1)	(1)	(1)
8386	Stewart	Limestone	156	2.60	(1)	(1)	13.0	4	42
6739	Bay Springs	Argillaceous limestone	153	3.50	(1)	(1)	11.2	6	27
5502	Straw Plains	Limestone	172	.11	4.0	9.9	(1)	10	20
5504	do.	do.	172	.42	4.5	8.9	(1)	8	15
5503	do.	Dolomite	178	.27	2.7	14.6	(1)	17	21
1684	Lenoir City	do.	172	.30	4.5	8.9	9.3	11	37
1205	Madison	Limestone	178	2.82	(1)	(1)	(1)	3	84
7553	Clarksville	Ferruginous sandstone	168	1.12	4.4	9.1	15.6	6	171
7554	do.	do.	165	.74	5.0	8.0	15.0	5	46
7555	do.	do.	165	.50	4.6	8.7	14.9	7	64
7884	do.	Argillaceous limestone	168	.76	4.1	9.9	16.0	7	65
7901	do.	Limestone	165	.90	2.9	13.9	16.9	5	41
7902	do.	do.	168	.30	3.8	10.6	15.8	6	40
7903	Porters Quarry	Cherty limestone	172	.20	2.6	11.1	16.9	8	35
7904	Corbin Quarry	Argillaceous limestone	168	.60	4.4	9.1	15.6	9	43
8151	Clarksville	Limestone	168	.43	8.3	4.8	16.8	6	62
5686	Copper Hill	Copper slag	212	.69	5.2	7.6	(1)	(1)	39
4047	Oliver Springs	Chert	162	.74	20.0	5.0	(1)	(1)	11
6826	Harriman	Siliceous dolomite	178	.37	2.9	12.8	15.4	13	57
9008	do.	do.	175	.85	5.5	7.4	15.2	9	48
9853	do.	Dolomite	168	.32	8.8	8.9	15.3	7	38
1940	Huntsville	Argillaceous limestone	153	2.82	(1)	4.6	(1)	(1)	24
3429	Bristol	Sandstone	175	.82	(1)	(1)	18.4	23	65
3431	do.	Dolomite	175	.97	(1)	(1)	17.6	9	40
3432	do.	do.	175	.60	(1)	(1)	16.3	8	24
7008	do.	do.	178	.20	2.6	15.4	16.8	15	22
3430	do.	Siliceous dolomite	175	.46	(1)	(1)	17.7	10	20
5440	Burf.	Dolomitic limestone	168	1.40	5.8	6.9	13.2	5	18
8007	Bristol	Limestone	159	1.63	(1)	(1)	18.7	5	41
7557	Franklin	Feldspathic sandstone	168	.05	4.6	8.7	15.8	5	26
6200	Wilson	Limestone	168	.44	5.4	7.4	14.7	3	13

2 Exact locality not known.

1 Test not made.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, and Cuba, complete to January 1, 1916—Contd.

TEXAS.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
1199	San Antonio.....	Bexar.....	Limestone.....	Pounds. 153	Pounds. 4.89	(1)	(1)	0	4	42
1202	do.....	do.....	do.....	143	8.29	(1)	(1)	0	3	21
1229	do.....	do.....	do.....	159	2.19	5.2	7.8	0	3	42
1500	Sand Pitt Station.	Burleson.....	Sandstone.....	140	3.50	4.2	9.6	16.7	14	13
7609	New Brauntfels.	Comal.....	Limestone.....	165	1.12	4.8	8.3	13.2	6	12
2084	El Paso.....	El Paso.....	Syenite.....	159	1.58	14.4	2.8	18.2	11	200
3727	do.....	do.....	do.....	159	1.40	4.1	9.9	18.1	13	150
2155	do.....	do.....	Syenite porphyry.....	159	1.68	2.5	15.7	18.2	9	257
7297	Dublin.....	Erath.....	Fossiliferous limestone.....	168	1.64	6.7	6.0	14.6	4	61
1479	Denison.....	Grayson.....	Limestone.....	159	2.77	5.2	7.7	12.8	8	107
1480	do.....	do.....	do.....	162	1.94	4.4	9.2	15.4	9	81
3414	Denison (near)	do.....	Ferruginous limestone.....	162	2.20	(1)	(1)	15.9	11	23
3412	do.....	do.....	do.....	153	5.65	(1)	(1)	12.3	5	101
3413	do.....	do.....	do.....	159	2.71	(1)	(1)	15.6	8	74
5642	Denison.....	do.....	Argillaceous limestone.....	162	2.12	5.7	7.0	13.7	8	44
5852	do.....	do.....	do.....	159	2.87	6.6	6.0	14.6	6	41
5851	do.....	do.....	do.....	159	3.63	7.1	8.6	14.8	5	41
5709	Sherman.....	do.....	do.....	162	1.61	4.8	8.3	10.3	8	82
5938	do.....	do.....	Altered granite.....	134	11.96	7.5	5.3	2.7	3	176
1958	Marshall.....	do.....	Argillaceous limestone.....	153	5.52	22.9	1.7	(1)	(1)	39
2685	Hillsboro.....	Harrison.....	Ferruginous sandstone.....	143	8.60	9.5	4.2	(1)	(1)	32
3869	Jacksboro.....	Hill.....	Limestone.....	165	1.94	5.0	8.0	14.3	5	30
4412	Bridgeport.....	Jack.....	do.....	168	1.34	5.5	7.3	14.8	9	32
5395	Stewarton.....	do.....	do.....	168	1.82	4.9	8.2	13.5	4	93
7331	Jacksboro.....	do.....	do.....	165	1.63	5.2	7.7	13.5	6	118
7332	do.....	do.....	do.....	165	1.27	3.8	10.6	14.1	6	202
6314	Terrell.....	do.....	Siliceous limestone.....	153	4.11	12.0	3.3	(1)	(1)	125
7015	do.....	Kaufman.....	do.....	162	1.63	9.0	4.4	5.0	7	103
7016	Elmo Quarry.....	do.....	do.....	156	2.92	11.7	3.4	0	4	34
3147	Paris.....	do.....	Sandstone.....	143	7.25	11.3	3.5	0	4	4
5532	do.....	Lamar.....	Chert conglomerate.....	159	4.49	4.9	8.1	19.4	10	4
7224	Temacana.....	do.....	Argillaceous limestone.....	159	2.28	7.6	5.2	7.8	4	152
8591	Springfield.....	Limestone.....	Limestone.....	159	1.45	4.5	8.9	15.0	7	68
8885	Temacana.....	do.....	Fossiliferous limestone.....	162	1.45	8.2	4.9	4.0	4	35
6625	Marshall.....	do.....	do.....	156	1.27	26.0	1.5	(1)	(1)	152
5955	Richland.....	Marshall.....	Iron conglomerate.....	(1)	1.33	6.2	6.5	15.6	9	47
7070	Coriscana.....	Navarro.....	Crystalline limestone.....	165	1.60	5.5	7.3	14.1	6	21

7209	Richland.....	do.....	168	1.02	3.8	10.5	13.3	6	104
5432	Marineal.....	Nolan.....	159	1.67	6.2	6.5	13.3	4	16
4131	Mineral Wells.....	Palo Pinto.....	165	1.22	5.5	7.3	13.5	7	69
6579	Strawn.....	do.....	168	.37	4.2	9.5	13.5	6	44
6396	(2).....	Smith.....	162	.33	4.2	9.5	18.8	6	5
6398	(2).....	do.....	165	.77	4.3	9.3	15.3	6	165
6397	(2).....	Calcareous sandstone.....	172	3.31	26.8	1.5	(1)	(1)	11
5455	Abilene.....	Ferruginous conglomerate.....	165	1.50	4.0	9.9	14.2	7	21
7763	Travis.....	Limestone.....	199	.21	1.7	23.5	18.7	24	16
5235	(2).....	Nephelite basalt.....	(1)	(1)	(1)	(1)	15.7	5	62
8237	(2).....	do.....	(1)	(1)	(1)	(1)	15.3	5	36
8238	(2).....	do.....	(1)	(1)	(1)	(1)	16.0	4	35
8234	(2).....	do.....	(1)	(1)	(1)	(1)	14.7	5	59
8236	(2).....	do.....	(1)	(1)	(1)	(1)	16.2	14	33
8239	(2).....	Siliceous dolomite.....	(1)	(1)	(1)	(1)	17.5	22	78
7129	Knippa.....	Rhyolite.....	193	.39	1.8	22.2	16.7	12	67
1439	Grayville Quarry.....	Nephelite basalt.....	143	2.67	5.0	7.9	0	12	93
2706	Washington.....	Sandstone.....	156	3.20	10.7	3.8	13.2	4	46
2707	Round Rock.....	Limestone.....	159	2.64	7.1	5.6	13.2	4	10
2708	do.....	do.....	153	5.06	23.8	1.7	5.3	3	66
6000	Wise.....	do.....	165	1.03	6.8	5.9	12.2	6	47
6057	do.....	do.....	168	.60	6.4	6.2	13.8	5	27
6684	(4).....	do.....	168	.36	6.1	6.6	14.6	6	61
7242	Chico.....	do.....	168	.37	4.3	9.3	14.1	4	61
6683	(2).....	do.....	168	.26	(1)	(1)	15.6	6	26

UTAH.

8191	(2).....	Morgan.....	165	0.41	7.2	5.6	(1)	(1)	461
1995	Salt Lake City.....	Salt Lake.....	168	.77	2.9	13.7	16.8	12	44
1997	do.....	do.....	159	2.31	3.1	17.9	17.9	20	34
3271	(2).....	do.....	165	.90	4.1	9.8	16.9	11	5
4121	Salt Lake City.....	Slag.....	206	.69	4.7	8.4	(1)	(1)	10
4122	Sandy City.....	do.....	218	.52	5.6	7.2	(1)	(1)	21
3332	Provo.....	Chert.....	188	1.15	5.8	6.9	17.4	6	4
3333	do.....	do.....	162	1.08	29.2	1.4	(1)	(1)	19
3334	do.....	Sericite schist.....	175	.16	6.2	6.4	16.2	7	59
3337	do.....	Siliceous limestone.....	162	2.36	3.6	11.0	18.2	20	10
3338	do.....	Limestone.....	165	.45	3.0	13.2	(1)	(1)	28
3339	do.....	Sandstone.....	168	.10	2.3	17.5	19.0	17	61
4744	do.....	Bituminous sandstone.....	140	1.34	5.2	7.8	5.6	6	500+

1 Test not made.

2 Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, and Cuba, complete to January 1, 1916—Contd.

VERMONT.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Comminuting value.
1946	Middlebury	Addison	Limestone	Pounds, 172	Pounds, 0.62	3.8	10.5	15.4	6	77
1220	North Pownal	Bennington	Marble	168	.36	5.8	7.0	8.9	6	71
1256	do.	do.	Limestone	172	.30	3.2	12.5	12.6	5	32
2889	Bennington	do.	do.	168	.41	5.0	8.0	(1)	(1)	53
2884	do.	do.	Dolomite	178	.35	4.2	9.4	15.0	8	41
2885	do.	do.	do.	178	.33	3.6	11.2	16.6	6	30
2886	do.	do.	do.	178	.34	4.1	9.8	14.5	7	13
2887	do.	do.	do.	175	.98	4.1	9.9	16.9	8	23
2888	do.	do.	Quartzite	165	.35	2.3	17.2	(1)	(1)	4
7109	do.	do.	do.	165	.29	6.8	5.9	19.2	4	4
6685	Hardwick	Caledonia	Granite	165	.39	4.2	9.5	17.5	6	35
3329	Berlington	do.	Red dolomite marble	175	.25	3.2	12.3	17.3	23	31
3330	do.	Chittenden	Dolomite marble	175	.39	2.5	16.0	16.6	18	10
8369	do.	do.	Dolomite	175	.42	4.4	9.1	17.2	15	10
8370	do.	do.	do.	178	.42	3.4	11.7	18.0	11	23
1678	St. Albans	Franklin	Argillaceous dolomite	168	.42	2.8	14.3	19.5	17	4
1681	do.	do.	Feldspathic sandstone	165	.36	2.3	17.4	19.3	12	3
1680	do.	do.	do.	178	.26	4.2	9.6	16.3	9	9
1726	Swanton	do.	Dolomite	172	.20	5.7	7.0	(1)	(1)	26
1679	Isle La Motte	Grand Isle	Limestone	168	.09	4.0	10.1	17.3	9	18
2372	Barton	Orleans	Biotite hornblende schist	181	.09	2.8	14.4	18.5	18	54
2373	do.	do.	Biotite granite	165	.28	8.1	3.0	17.7	5	39
726	Wallingford	Rutland	Amphibolite	193	.25	4.7	8.5	(1)	(1)	15
5543	East Wallingford	do.	Altered diabase	184	.96	2.6	13.3	17.2	15	111
5950	Rutland	do.	Siliceous dolomite	175	.28	3.0	13.2	18.3	10	31
6955	do.	do.	Quartzite	165	.15	2.3	17.1	19.2	12	2
1646	Barre	Washington	Granite	165	.65	3.1	12.8	18.7	27	15
3192	do.	do.	Biotite granite	165	.29	8.2	16.8	18.8	9	9
8853	do.	do.	Granite	165	.44	3.0	13.3	(1)	7	(1)
6677	Fellows Falls	Windham	Biotite schist	178	.19	2.9	13.9	14.4	16	50
4092	Warford	Windsor	Altered diabase	181	.41	2.8	14.1	16.9	10	150
4123	Woodstock	do.	Hornblende schist	187	.06	4.3	9.4	17.2	7	21

VIRGINIA.

[illegible]

1 Test not made.

² Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
412	Alexandria.	Alexandria.	Mica schist.	Pounds. 175	Pounds. 37	4.3	9.3	(1)	(1)	(1)
1310	Chain Bridge.	do.	do.	175	30	4.8	8.4	17.1	6	31
1320	(2)	do.	do.	175	24	4.2	9.6	(1)	(1)	29
1440	(2)	do.	do.	165	12	3.7	10.8	(1)	(1)	0
1441	(2)	do.	do.	172	27	2.6	15.6	18.0	30	40
5952	Roslyn.	do.	Granite.	175	26	2.9	13.6	17.8	11	22
1657	(2)	do.	Altered granite.	172	35	4.7	8.5	(1)	(1)	28
5953	Covington (near).	do.	Granite gneiss.	172	35	4.7	8.5	(1)	(1)	28
9453	Clifton Forge.	Alleghany	Crystalline limestone.	165	64	4.2	9.5	14.1	6	43
1899	Amherst (1 mile south of).	do.	Feldspathic sandstone.	168	1.04	(1)	(1)	15.8	20	74
1900	Sweet Briar Station (near).	Amherst.	Quartzite.	165	95	4.3	9.3	(1)	(1)	2
1901	Sweet Briar Station.	do.	Micaceous hornblende schist.	187	15	5.7	7.1	(1)	5	53
1976	McIvor Station.	do.	Hornblende schist.	187	23	3.3	12.1	14.0	10	37
1984	Lynchburg Road.	do.	do.	190	44	6.3	6.4	15.7	10	37
2208	(2)	do.	do.	193	37	2.7	13.0	17.0	10	12
2221	Lynchburg (near).	do.	Mica schist.	165	82	4.4	9.0	14.9	7	12
2679	(2)	do.	Hornblende schist.	190	33	5.5	7.3	16.2	8	22
2351	(2)	do.	do.	193	30	4.2	9.5	17.7	9	13
3098	(2)	do.	do.	184	88	12.8	3.1	16.2	8	24
4102	Monroe.	do.	do.	193	21	3.0	13.2	17.9	8	15
4419	do.	do.	do.	193	26	3.1	12.7	16.3	10	13
4861	Amherst Courthouse.	do.	do.	193	23	5.9	6.8	14.2	9	20
4862	do.	do.	Mica schist.	168	21	8.2	4.9	18.3	10	18
1972	Amherst Depot.	do.	Hornblende biotite schist.	187	25	6.5	16.0	16.0	7	10
1977	Monroe.	do.	Epidoste.	190	61	7.4	5.4	19.3	23	14
1978	Amherst Depot (near).	do.	do.	206	1.10	(1)	(1)	10.7	10	44
1982	Monroe.	do.	Biotite gneiss.	172	48	4.7	8.5	16.5	9	58
(2)	do.	do.	do.	172	68	(1)	(1)	16.7	7	38
3381	James River.	do.	Diorite gneiss.	184	1.19	5.7	7.0	9.0	6	52
3521	(2)	do.	Hornblende gneiss.	187	59	16.4	2.4	12.3	5	13
4203	Monroe.	do.	Biotite gneiss.	172	28	9.2	4.3	17.0	6	28
4204	do.	do.	do.	168	55	7.2	5.6	18.2	5	29
4389	do.	do.	do.	172	60	7.4	5.4	17.8	5	25
4860	Amherst Courthouse.	do.	Gneiss.	190	63	5.3	7.5	15.7	7	14
4863	do.	do.	Biotite gneiss.	172	33	5.3	7.6	14.6	8	14
4937	do.	do.	do.	175	25	5.3	7.5	17.6	11	13
6636	do.	do.	do.	168	44	6.6	6.0	16.8	12	8
6823	Amherst Courthouse (near).	do.	Granite gneiss.	175	73	8.7	4.6	9.2	3	43
6823	(2)	do.	Biotite gneiss.	181	69	7.9	5.1	13.7	5	56
2223	(2)	do.	Amphibolite.	187	1.04	10.3	3.9	13.5	7	75

3019	(3)	do.	Altered diabase.	190	21	1.8	22.0	18.6	24	11
6524	(3)	do.	Altered diorite.	190	.88	2.4	16.3	17.9	8	16
7051	Clifford.	do.	Gneissoid granite.	168	.29	7.5	17.7	17.7	8	16
7891	Madison Heights.	do.	Altered biotite granite	162	1.30	4.7	8.4	18.0	9	40
2057	Appomattox.	do.	Sandstone.	175	1.07	(1)	(1)	16.5	(1)	17
5926	Basie.	do.	Quartzite.	165	.27	4.6	8.6	(1)	4	4
1904	Stanton (near).	do.	Dolomitic limestone.	175	1.19	4.5	8.9	15.0	8	68
2037	Stanton (1 mile north of).	do.	Limestone.	168	1.98	3.4	11.8	15.5	11	37
2680	Craigsville.	do.	do.	168	.32	3.8	10.6	17.7	26	26
2681	do.	do.	do.	168	.27	4.6	8.8	13.7	32	32
2681	do.	do.	do.	172	.41	(1)	(1)	16.0	7	7
2399	Fordwick (near).	do.	do.	168	.67	5.4	7.4	15.4	5	23
5384	Brookwood.	do.	do.	178	.22	5.4	7.4	18.3	19	19
5176	Waynesboro.	do.	do.	168	.08	5.1	7.8	15.3	6	31
5620	Stanton.	do.	Chert.	165	.43	3.9	10.3	19.5	7	18
2897	Fordwick (near).	do.	do.	172	.68	4.7	8.5	15.5	11	42
2898	do.	do.	Dolomite.	178	.14	3.2	12.7	13.2	11	13
4738	Stanton.	do.	do.	175	.66	3.1	12.8	16.5	16	23
5383	Brookwood.	do.	do.	175	.90	3.7	10.8	16.8	8	44
6580	Stanton.	do.	do.	187	.37	2.9	13.7	16.8	22	34
3093	(3)	do.	Chlorite schist.	168	2.20	4.7	8.5	16.1	6	186
3101	Basie (near).	do.	Sandstone.	162	1.08	7.9	5.1	19.0	6	6
3724	Waynesboro.	do.	do.	168	.65	12.4	3.2	6.3	29	29
3725	Stanton.	do.	Slate.	172	.42	4.6	8.8	11.8	10	32
3841	Waynesboro.	do.	Calcareous slate.	181	.39	3.8	10.6	13.2	20	20
3937	(3)	do.	Altered diabase.	162	1.16	3.8	4.6	10.8	2	76
8741	Boonsboro.	do.	Biotite gneiss.	173	.40	11.1	3.6	15.8	29	29
2912	(3)	do.	do.	173	.40	11.1	9.1	17.8	7	28
2912	Bedford City.	do.	Granite gneiss.	172	.38	4.4	7.7	18.8	9	41
8804	Albert.	do.	do.	173	1.26	5.2	4.7	12.3	(1)	21
1969	Lynchburg.	do.	Hornblende epidote schist.	184	.79	8.6	4.2	(1)	(1)	21
2913	(3)	do.	Hornblende schist.	193	.58	7.3	3.5	16.7	8	28
3088	Lynchburg (near).	do.	Biotite schist.	178	.46	7.3	3.9	(1)	(1)	7
8021	Holcomb Rock.	do.	Smelter slag.	187	1.50	2.0	20.2	(1)	(1)	4
2756	Gala.	do.	Quartzite.	162	.71	20.0	12.3	(1)	(1)	4
2757	do.	do.	Pink quartzite.	165	.19	3.2	5.3	16.5	6	28
2050	Campbell.	do.	Granite.	165	.51	7.5	5.3	16.5	8	4
3326	Alta Vista.	do.	do.	162	.29	3.7	10.8	18.7	10	10
2162	Lynchburg.	do.	Quartzite.	165	.20	2.6	15.5	19.0	14	56
2901	(3)	do.	Limestone.	168	.51	5.7	7.0	14.3	4	4
2902	(3)	do.	do.	168	.15	4.2	9.5	17.1	5	5
2718	Lynchburg (near).	do.	Hornblende schist.	190	.49	4.4	9.0	15.2	8	15
2905	(3)	do.	Quartz schist.	168	.18	3.9	10.3	(1)	(1)	15
5715	Alta Vista.	do.	Biotite schist.	168	.17	3.3	12.0	18.3	17	21
6599	do.	do.	Quartz mica schist.	168	.41	3.3	12.0	17.7	18	42
6821	(3)	do.	Muscovite schist.	172	.40	4.6	8.8	14.3	21	15
3327	Alta Vista.	do.	do.	172	.19	2.3	17.1	18.0	18	18
5050	Lynchburg.	do.	Sericite gneiss.	168	.37	3.3	12.0	18.7	9	6
4619	do.	do.	Calcareous sandstone.	172	2.81	4.2	14.5	13.6	6	22
3275	Charlottesville.	do.	Altered diorite.	181	.59	2.8	18.8	18.8	26	9
3276	do.	do.	Hornblende granite.	162	1.61	4.0	9.9	18.6	61	62

Test not made.

² Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

VIRGINIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
				<i>Pounds.</i>	<i>Pounds.</i>					
1393	Norfolk.....	Chesterfield	Granite.....	165	.44	2.5	16.1	(1)	(1)	88
1774	Richmond (near).....	do.	do.	165	.31	3.2	12.3	17.5	11	33
3239	Berryville.....	do.	do.	165	.23	2.1	19.0	18.6	13	20
7586	Craigsville.....	Clark	Argillaceous limestone.....	172	.16	2.5	16.0	17.4	13	30
492	Stevensburg (near).....	Craig	Dolomitic limestone.....	168	.31	4.1	9.7	(1)	(1)	22
2281	Mount Run Mill (near).....	Culpeper	Metamorphic sandstone.....	172	1.07	2.2	18.0	19.3	20	25
2282	Stevensburg (near).....	do.	do.	168	1.38	2.2	17.7	19.1	14	98
2283	Kellyville (near).....	do.	do.	172	.67	2.6	15.6	18.8	60	57
2284	Brandy Station.....	do.	do.	159	2.77	2.4	16.7	18.3	30	344
2325	Culpeper (near).....	do.	do.	159	3.04	2.3	17.2	16.8	19	130
3862	(?).....	do.	Ferruginous sandstone.....	175	.33	3.1	12.9	17.8	24	27
4992	(?).....	do.	Argillaceous sandstone.....	168	.64	2.3	17.4	16.3	32	27
6258	(?).....	do.	Indurated argillaceous sandstone.....	153	4.62	4.6	8.6	12.3	9	195
7063	Culpeper (near).....	do.	Argillaceous sandstone.....	162	2.51	4.7	8.5	14.7	12	47
2326	do.....	do.	do.	190	1.18	2.8	14.5	16.6	24	235
7315	Culpeper.....	do.	Amphibolite.....	181	1.65	2.1	19.4	17.8	11	92
8321	Culpeper (7 miles from).....	do.	do.	187	.22	4.6	8.7	17.5	18	112
8433	Griffinsburg.....	do.	do.	193	.41	2.3	17.2	17.7	9	26
8619	do.....	do.	do.	196	.46	1.5	26.6	18.5	16	36
3520	Culpeper (near).....	do.	Altered diabase.....	184	.85	2.8	14.1	18.3	6	22
3731	Stevensburg Township.....	do.	Hypersthene diabase.....	190	.07	3.3	12.0	18.4	24	49
3867	(?).....	do.	Slate.....	175	.32	3.7	10.8	18.0	11	20
4816	Brandy Station (near).....	do.	do.	175	.42	2.8	14.3	16.8	32	20
4817	Carco Mill (near).....	do.	do.	175	.32	(1)	(1)	16.8	26	30
3337	Brandy Station.....	do.	Chert.....	181	.27	2.8	14.4	17.3	24	14
4089	Buena.....	do.	Gabbro.....	193	.41	(1)	(1)	18.9	17	12
5878	Culpeper.....	do.	Altered basalt.....	187	.32	(1)	(1)	18.2	14	12
5879	do.....	do.	do.	187	.32	3.0	13.3	18.5	47	41
7168	Culpeper (3 miles northeast of).....	do.	Altered basalt breccia.....	175	1.97	2.8	14.5	18.2	20	31
6543	(?).....	do.	Biotite schist.....	187	.41	4.0	10.1	11.8	5	85
6544	(?).....	do.	do.	175	.16	3.8	10.5	15.2	9	72
8320	Culpeper (9 miles from).....	do.	Sericite schist.....	168	.37	4.6	8.6	14.9	9	50
6545	(?).....	do.	Mica gneiss.....	171	.60	5.9	6.8	15.5	4	51
8318	Boston (near).....	do.	Micaeous quartzite.....	168	.63	8.9	4.5	15.1	7	75
8319	Hazel River Bridge (near).....	do.	Biotite gneiss.....	165	.39	4.6	8.7	18.7	7	22
8432	Griffinsburg.....	do.	Granite gneiss.....	165	.25	2.9	14.0	18.2	11	34
8618	do.....	do.	do.	165	.43	4.7	8.4	18.0	5	27
8618	do.....	do.	Granite.....	168	.23	4.1	9.8	18.5	6	26
6796	(?).....	Dinwiddie	Granite.....	165	.46	(1)	(1)	18.8	5	(1)

1196	Fairfax Courthouse.....	Fairfax.	Limestone.	168	47	(1)	(1)	15.8	6	57
1197	do.....	do.	do.	168	70	(1)	(1)	13.2	6	24
1198	do.....	do.	do.	168	73	(1)	(1)	18.2	(1)	33
1318	Fredricksburg...	do.	Granite gneiss.	168	31	3.5	15.6	(1)	(1)	93
3017	Ocoquan.....	do.	Sericite gneiss.	172	23	2.1	19.2	18.8	14	17
4397	(?).....	do.	Granite gneiss.	168	45	4.3	9.2	18.8	11	24
5010	(?).....	do.	Sericite gneiss.	168	1	9.0	9.7	15.7	11	48
5011	(?).....	do.	Granite gneiss.	175	39	4.1	9.5	19.0	18	26
5012	(?).....	do.	Muscovite gneiss.	165	38	10.5	3.8	17.9	7	26
5014	(?).....	do.	Biotite gneiss.	178	17	4.0	18.3	17.9	12	112
7317	Ocoquan.....	do.	Sericite gneiss.	168	17	2.2	10.8	18.5	17	25
8226	McLean.....	do.	Granite gneiss.	175	38	3.7	(1)	18.7	4	28
9315	Herdon.....	do.	Diabase.	168	19	3.0	13.2	18.7	19	45
9315	Clifton Station ..	do.	do.	50	50	3.5	15.7	18.0	14	146
7187	Clifton.....	do.	do.	184	37	2.5	13.7	17.4	15	115
7238	(?).....	do.	Altered diabase.	175	1.88	3.7	10.9	17.0	4	170
2000	Herdon.....	do.	Feldspathic sandstone.	136	2.45	5.1	7.8	17.4	11	500+
3445	Falls Church.....	do.	Muscovite granite.	165	45	3.3	12.0	18.9	15	68
4988	Falls Church (near) ..	do.	Biotite granite.	175	13	2.9	13.6	18.4	13	21
5005	Falls Church.....	do.	Gneissoid granite.	165	1.42	5.5	7.2	17.8	29	33
5013	(?).....	do.	Biotite granite.	172	34	5.1	7.9	18.7	13	33
4173	(?).....	do.	Epidosite.	187	53	3.7	10.8	16.3	10	31
5371	Fairfax Courthouse (near) ..	do.	Altered diorite.	178	29	5.1	7.8	17.4	7	21
6043	Fairfax.....	do.	Serpentine.	175	1.14	4.9	8.2	15.8	11	56
8779	Vienna.....	do.	Epidote chlorite schist.	168	65	8.1	4.9	17.4	12	12
782	Catletts Station.....	do.	Diabase.	187	14	1.8	4.9	17.4	(1)	(1)
5762	Warrenton.....	Fauguer.	do.	187	45	2.1	18.7	18.6	24	41
6603	Rectortown.....	do.	Altered diabase.	187	70	(1)	(1)	17.3	38	61
8305	Delaplane.....	do.	Quartzite.	165	32	3.1	13.1	(1)	4	41
1690	Broad Run.....	do.	Micaceous quartzite.	165	2.95	2.6	15.4	(1)	(1)	2
4617	do.....	do.	Quartz.	165	10	(1)	(1)	19.5	7	3
4900A	do.....	do.	Slate.	168	1.37	3.8	10.6	11.7	10	255
1785	Beaton (1 mile east of) ..	do.	Epidosite.	168	1.29	2.2	18.5	16.0	21	207
1786	Remington (3 miles east of) ..	do.	do.	187	59	2.0	19.6	18.6	22	29
2414	The Plains (1½ miles north of) ..	do.	do.	200	26	(1)	(1)	19.0	8	3
4900B	Broad Run.....	do.	do.	181	56	4.0	10.0	(1)	(1)	3
5639	Warrenton.....	do.	do.	193	1.05	3.3	12.0	18.7	16	73
5640	do.....	do.	do.	187	1.05	3.6	11.2	19.3	16	18
5641	do.....	do.	do.	167	1.65	3.1	11.2	19.3	16	18
2415	The Plains (4 miles north of) ..	do.	Schist.	168	.63	5.4	7.4	17.8	11	22
2385	(?).....	do.	Epidote chlorite schist.	190	14	2.8	14.2	16.8	20	21
3152	The Plains.....	do.	Hornblende epidote schist.	190	1.28	8.8	4.6	17.9	20	152
3499	(?).....	do.	Hornblende schist.	190	.34	4.6	8.7	15.2	9	24
2416	The Plains (4½ miles north of) ..	do.	Gneiss.	168	47	4.1	11.7	18.8	7	20
3084	(?).....	do.	Sericite gneiss.	165	35	3.4	11.7	18.8	9	15
3343	(?).....	do.	Gneiss.	165	35	3.4	11.7	17.3	10	34
4175	Catlett.....	do.	Gabbro.	187	34	1.8	22.2	18.5	20	48
8304	Delaplane.....	do.	Hornblende granite.	187	28	6.0	6.7	17.3	20	48
4900C	Broad Run (near).....	do.	Sandstone.	165	.98	7.9	5.1	19.5	11	64
5923	Strathmore.....	do.	Chlorite epidote schist.	165	.14	(1)	(1)	19.0	(1)	(1)
6465	Fluvanna.....	do.	Sericite chlorite schist.	175	.36	5.0	8.0	17.5	6	23
		do.		172	.43	4.1	9.8	13.0	9	17

Test not made.

² Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

VIRGINIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
				Pounds.	Pounds.					
5678	Eggleston (near)	Giles	Dolomite.....	178	.44	4.4	9.2	16.0	24	27
5978	Pembroke.....	do.	Dolomitic marble.....	178	.27	3.1	12.8	14.7	11	15
1317	Bosobel.....	Goochland	Granite gneiss.....	165	.30	4.0	9.9	18.6	(1)	61
1557	Penitentiary Farm.....	do.	Gneiss.....	168	.30	3.1	13.1	17.6	9	20
1858	(2).....	do.	Biotite gneiss.....	162	.58	6.7	5.9	18.0	8	56
1859	(2).....	do.	Granite gneiss.....	165	.26	4.0	10.0	18.2	9	110
3240	(2).....	do.	do.....	165	.21	3.5	11.4	19.0	12	12
5924	Bosobel.....	do.	do.....	162	.28	4.5	9.0	19.3	8	50
8712	(2).....	do.	Granite.....	162	.52	4.8	8.3	18.7	15	38
1778	Emporia.....	Greensville	do.....	181	.19	2.5	15.7	18.7	10	25
3468	Emporia (near)	do.	Granite gneiss.....	181	.38	3.5	11.4	17.8	9	39
3036	Virginia.....	Halifax	Altered andesite.....	172	.15	3.3	12.2	(1)	(1)	19
3172	do.....	do.	Epidote chlorite schist.....	168	.18	3.7	10.9	(1)	(1)	15
1878	Verdow Station (near).....	Hanover	Granite.....	168	.44	2.8	14.3	19.0	19	22
1823	Richmond.....	Henrico	do.....	165	.54	4.1	9.7	17.8	8	16
3033	do.....	do.	Biotite granite.....	165	.21	3.1	13.0	18.8	11	22
8747	do.....	do.	Granite.....	162	.67	4.4	9.1	19.0	7	10
8942	do.....	do.	Aplite granite.....	165	.53	2.3	17.4	18.2	8	30
3266	(2).....	do.	Hornblende epidote schist.....	190	.70	2.5	16.1	18.0	9	50
2863-1	(2).....	Lee	Limestone.....	198	.48	4.8	10.0	16.5	10	49
2864-2	(2).....	do.	do.....	168	.07	3.7	8.3	16.0	6	25
1011	Paeonian Springs.....	Loudoun	Gneiss.....	168	.43	3.7	7.0	18.0	14	52
1012	do.....	do.	Epidosite.....	172	.45	3.6	11.2	19.1	13	83
1322	Mount Weather.....	do.	Hornblende schist.....	187	1.87	2.9	14.0	13.1	11	71
3817	Paeonian Springs.....	do.	do.....	187	.75	3.4	11.7	19.0	26	19
1991	Belmont Park.....	do.	Gabbroitic diabase.....	187	.92	2.8	14.4	18.5	16	57
1690	Belmont Park (near).....	do.	Diabase.....	187	.35	3.1	12.8	18.2	13	17
9047	Belmont Park.....	do.	do.....	187	.43	2.6	15.5	18.3	13	22
3493	Broad Run.....	do.	Gabbro.....	187	.21	2.8	14.4	18.6	19	26
7832	(2).....	do.	Cherty limestone.....	168	.47	5.3	7.5	13.2	6	46
4826	Mineral.....	do.	Quartzite.....	165	.17	3.5	11.3	19.3	21	2
871	do.....	Louisa	Chlorite gneiss.....	187	.16	8.1	4.9	(1)	(1)	87
3265	do.....	Lunenburg	Epidote quartzite.....	168	.76	2.7	14.9	18.2	10	6
5716	Kenbridge.....	do.	Gneissoid granite.....	162	.15	3.1	12.8	19.1	8	17
3150	Chase City.....	do.	Sericite schist.....	168	.73	8.5	4.7	12.4	10	15
3149	do.....	Mecklenburg	Epidote schist.....	184	.57	3.5	11.5	14.5	12	16
3176	do.....	do.	Biotite schist.....	168	.85	4.2	9.5	16.3	9	17
7849	(2).....	do.	Mica schist.....	165	1.01	3.3	12.3	10.2	9	17
3174	Clarksville.....	do.	Syenite.....	153	2.88	3.5	11.5	18.3	11	43

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

VIRGINIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Commenting value.
7025	Dublin (near)	Pulaski.	Argillaceous limestone.	Pounds, 175	Pounds, 20	3.1	12.7	18.0	22	11
8341	Pulaski.	do.	do.	165	1.86	2.7	7.1	18.3	9	37
6541	(1)	do.	Carbonaceous dolomite.	175	.54	3.2	7.6	17.0	11	32
8340	Pulaski.	do.	Dolomite.	175	.38	3.2	7.7	17.0	6	46
8342	do.	do.	do.	175	.88	4.4	9.1	17.0	8	49
8343	do.	do.	Siliceous dolomite.	168	1.18	13.3	3.0	17.0	5	47
8405	do.	do.	Dolomite.	178	.46	4.0	10.0	17.0	10	23
7452	Fint Hill.	Rappahannock.	Hornblende epidote schist.	187	.96	4.5	8.8	15.8	9	99
1623	Roanoke.	do.	Dolomite.	172	.54	3.4	11.7	16.3	13	87
1624	do.	do.	do.	178	.55	3.4	11.7	16.6	14	22
1630	do.	do.	do.	181	.67	6.1	6.6	17.6	7	44
3357	Lithia.	do.	Limestone.	168	.85	3.2	12.5	16.8	5	33
5461	Roanoke.	do.	Dolomitic limestone.	178	.14	3.9	10.3	18.3	11	33
3450	do.	do.	Quartzite.	162	.58	4.8	8.3	19.4	4	4
4848	do.	do.	Limestone.	168	.16	6.5	6.2	15.0	7	15
4849	do.	do.	do.	168	.21	4.7	8.4	(2)	(2)	12
4850	do.	do.	do.	168	.16	4.7	8.5	14.5	5	10
4858	do.	do.	Argillaceous limestone.	168	.12	4.7	8.4	16.3	9	11
4859	do.	do.	do.	168	.13	4.2	9.6	17.3	16	10
5920	Greenlee.	do.	Dolomitic marble.	178	.33	4.4	9.2	16.8	13	22
4600	Bluffs.	Rockingham.	Limestone.	168	.35	4.1	9.7	15.8	7	49
5382	Bluff Water Station.	do.	do.	168	.16	3.5	11.3	15.5	11	29
5385	do.	do.	do.	172	.79	3.8	10.5	16.4	13	34
6380	(1)	do.	do.	168	.24	6.1	6.6	14.3	7	62
5700	Harrisonburg.	do.	Cherty limestone.	156	2.07	3.4	19.2	16.6	16	9
6534	(1)	do.	Feldspathic sandstone.	165	.54	2.4	16.5	18.7	14	61
6578	(1)	do.	Calcareous sandstone.	162	.63	3.7	20.2	18.6	19	30
6379	(1)	do.	Dolomite.	175	.08	1.8	22.2	16.8	7	28
8140	Mount Crawford.	do.	do.	177	.41	2.5	16.0	17.8	24	45
3259	Castlewood.	Russell.	do.	175	.40	2.4	16.9	16.7	13	35
3911	Blackford.	do.	do.	178	.35	2.4	7.9	16.3	4	11
3260	Castlewood.	do.	Limestone.	172	.17	3.0	12.7	14.0	5	57
4609	Honaker.	do.	Argillaceous limestone.	178	.09	4.0	10.1	13.7	19	19
4670	do.	do.	Limestone.	172	.13	4.2	9.6	13.3	8	24
5375	St. Paul.	do.	do.	168	.33	3.7	17.9	17.1	4	25
3008	Strasburg.	Shenandoah.	do.	168	.19	2.1	7.8	13.5	18	18
3009	do.	do.	do.	168	.39	5.6	7.1	13.2	4	34
3511	do.	do.	do.	168	.13	5.3	7.5	16.0	5	30
3512	do.	do.	do.	175	.22	4.2	9.6	16.0	22	36
5820	(1)	do.	Calcareous sandstone.	168	.61	2.7	15.1	15.3	15	84

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

WASHINGTON.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
4539	Lind.....	Adams.	Basalt.....	Pounds. 184	Pounds. .24	2.2	18.4	18.3	14	25
4561	Asotin.....	Asotin.	do.....	184	.12	2.3	17.2	18.0	20	34
4562	Zindel.....	do.	Dolomitic marble.	168	.14	7.5	5.3	(¹)	(¹)	16
4769	Hoquian.....	Chehalis.	Basalt.....	178	.37	2.2	18.5	18.2	27	41
4778	Vulcan.....	Chelan.	do.....	178	.15	2.0	20.0	18.0	17	19
4558	Columbia River Station.	do.	do.....	178	.18	(¹)	(¹)	19.0	20	10
4589	Cashmere.....	do.	Feldspathic sandstone.	162	.73	6.4	6.3	(¹)	(¹)	67
4524	Wenatchee.....	do.	Biotite gneiss.	168	.21	5.2	7.8	(¹)	(¹)	28
4580	Leavenworth.....	do.	Granod. gneiss.	172	.40	7.0	5.7	17.0	4	15
2918	Fishers Landing.....	Clarke.	Olivine basalt.	175	1.33	2.9	16.0	17.8	15	8
2919	do.....	do.	do.....	168	1.88	3.0	13.7	17.3	13	8
4451	Vancouver.....	do.	Basalt.....	175	.63	3.0	13.2	19.3	19	13
4454	Yacolt.....	do.	Altered basalt.	175	.27	2.5	13.8	16.8	15	120
4006	Fisher.....	do.	Basalt.....	178	.30	2.9	13.8	18.0	25	19
4488	Dayton.....	Columbia.	do.....	178	.36	2.8	14.3	18.2	16	6
4900	do.....	do.	do.....	178	.56	2.3	17.4	17.7	21	3
2550	Kelso (3 miles from)	Cowlitz.	Angite andesite.	181	.17	3.2	12.6	18.8	21	176
4432	Castle Rock.....	do.	Basalt.....	178	.42	5.2	7.7	17.4	11	117
4436	Ladu (2 miles northwest of)	do.	do.....	187	.29	2.4	16.5	18.8	13	19
4442	Kalama (3 miles north of)	do.	do.....	175	.27	3.2	12.5	16.8	15	500+
4444	Stella (3 mile east of)	do.	do.....	168	1.77	2.5	16.1	8.5	14	7
4468	Carrollton (1½ miles northeast of)	do.	do.....	178	.10	3.3	12.1	17.3	6	52
4496	Stella.....	do.	do.....	181	.27	(¹)	(¹)	18.3	22	7
4510	Kalama.....	do.	do.....	175	.20	3.3	12.2	16.7	10	68
4520	do.....	do.	do.....	175	.14	3.3	12.0	15.4	10	62
4549	Stella.....	do.	do.....	181	.23	2.8	14.1	17.2	16	17
4559	Ladu.....	do.	do.....	184	.11	1.9	20.6	18.0	22	68
4564	do.....	do.	do.....	181	.12	3.8	10.4	18.0	10	148
4564	Kelso.....	do.	do.....	181	.83	3.9	10.1	14.3	7	500+
4452	Kelso (1 mile south of)	do.	Altered basalt.	175	.16	2.9	10.0	17.6	16	9
4553	Kahlotus.....	Franklin.	Basalt.....	178	.16	1.66	13.8	18.5	17	39
4459	Danville (½ mile southwest of)	Ferry.	Altered andesite.	165	1.66	3.0	13.3	18.3	13	500+
4429	do.....	do.	Altered hornblende andesite.	168	.14	3.0	13.3	18.3	17	39
4481	Keller.....	do.	do.....	165	.64	3.1	12.9	17.9	18	140
4548	Republic.....	do.	Altered andesite.	165	.27	6.5	6.2	(¹)	(¹)	79
4433	Cerulew.....	do.	Andesite.....	172	.30	8.6	6.1	17.0	5	4
4509	Republic.....	do.	Limestone	168	.14	8.9	4.5	14.3	4	13
4518	Curlew.....	do.	Crystalline limestone.	178	.34	6.3	6.4	(¹)	(¹)	19
4506	do.....	do.	Limestone	168	.23	4.4	9.0	18.1	8	11
4542	Lauriat.....	do.	Biotite granite.	162	.29	5.3	7.5	18.5	6	6
4516	Danville.....	do.	Granite.....	168	.32	6.7	6.0	(¹)	(¹)	500+
4516	do.....	do.	Serpentine.....	168	.32	6.7	6.0	(¹)	(¹)	500+

4537	Curlew.....	do.	175	25	11.1	17.5	10	38
4779	Keller.....	do.	168	35	10.2	17.9	12	11
4565	Republic.....	do.	159	13	7.8	(1)	(1)	2
4473	Adrian.....	do.	181	31	14.8	18.0	13	17
44480	Bacon.....	do.	175	52	14.8	18.1	17	111
4531	Coulee City.....	do.	184	30	18.7	18.3	21	7
4550	do.	do.	178	20	19.4	18.5	22	50
4555	do.	do.	184	14	16.3	(1)	(1)	32
4555	Ephrata.....	do.	181	34	8.9	12.0	6	500+
4466	Duckabush.....	do.	181	15	3.4	11.9	21	121
4498	Quilcene.....	do.	181	17	2.9	13.9	(1)	500+
4556	Brimon.....	do.	178	29	10.6	(1)	(1)	20
4569	Port Ludlow.....	do.	168	58	18.2	(1)	(1)	(1)
476	Seattle.....	King	184	22	10.6	(1)	(1)	(1)
477	do.	do.	184	1	2.0	19.8	(1)	500+
2140	do.	do.	159	46	3.5	11.6	13	200
2140	Franklin.....	do.	168	3	3.7	10.7	9	500+
2207	Seattle (near).....	do.	159	5	3.0	13.4	14	500+
4773	Quarry.....	do.	165	36	2.8	14.2	18	72
6581	Enumclaw.....	do.	168	173	5.0	8.1	9	500+
508	Seattle.....	do.	168	1	1.04	11.0	(1)	232
4435	Earlington.....	do.	156	37	8.9	(1)	12	500+
4577	North Bend.....	do.	172	22	13.6	17.5	23	19
4479	Vezie.....	do.	172	55	12.4	17.0	11	14
4563	Scenic.....	do.	172	19	(1)	18.8	7	198
4783	Hallford.....	do.	168	17	9.7	18.1	9	10
4578	Molson.....	do.	178	25	(1)	16.3	5	11
2144	Port Orchard.....	do.	181	250	(1)	15.6	9	500+
4574	Charleston.....	do.	181	15	3.3	12.2	16	82
4768	Kittitas.....	do.	181	30	2.1	19.0	20	35
4771	do.	do.	175	64	2.1	18.9	23	2
4775	Prosser.....	do.	178	17	2.2	18.2	11	40
4780	Konitzer.....	do.	178	42	2.3	18.4	3	3
4790	Roza.....	do.	178	80	1.7	24.1	32	10
4772	Easton.....	do.	159	128	1.6	25.6	(1)	3
4434	Klickitat.....	do.	175	43	11.8	17.2	13	42
4484	do.	do.	184	12	(1)	17.7	19	44
460	White Salmon.....	do.	175	29	15.4	18.7	40	13
4504	Cliffs.....	do.	184	12	2.6	15.6	18	15
2143	Chehalis.....	do.	178	14	14.4	17.9	14	112
4789	Meskitt.....	do.	178	27	17.5	15.3	17	14
4425	Govan.....	do.	181	73	19.4	18.9	21	21
4430	Almira.....	do.	181	1	20.8	18.2	20	21
4443	Sprague.....	do.	184	20	17.9	17.0	20	21
4457	Davenport.....	do.	181	45	13.1	17.0	20	21
4528	do.	do.	178	35	12.7	13.3	8	28
4538	Wilbur.....	do.	175	1.09	11.8	(1)	(1)	29
4576	Almira.....	do.	181	3	14.0	18.2	24	37
4579	Wilbur.....	do.	181	79	23.0	18.1	20	18
4483	Lilliwhau.....	do.	156	2.62	9.8	13.1	9	500+
4507	Hamahama.....	do.	178	67	9.4	13.8	7	500+
480	Okanogan.....	do.	175	50	4.8	(1)	(1)	18
4567	Oroville.....	Marble	178	50	8.3	(1)	(1)	18

1 Test not made.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

WASHINGTON—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
4502	Oroville	Okanogan	Altered hornblende andesite.	Pounds. 165	Pounds. .88	2.5	16.2	19.1	18	23
4527	Nighthawk	do.	Diorite.	164	.84	4.0	10.0	(1)	(1)	24
4073	South Bend	Pacific	Basaltic andesite.	162	.24	5.9	9.3	15.4	11	500+
4417	(2)	do.	Altered basalt.	175	4.90	4.3	6.7	13.2	15	500+
4431	South Bend	do.	Basalt.	181	1.29	2.9	13.6	16.6	6	252
4525	do.	do.	Altered basalt.	178	.57	4.0	9.9	13.7	8	177
4511	Holcomb	do.	Basalt tuff.	143	3.35	4.1	9.8	5.7	6	500+
4543	South Bend	do.	Basalt.	175	4.87	3.7	10.8	17.5	10	2
4546	do.	do.	do.	178	1.68	3.9	10.3	13.7	8	145
4784	Ilwaco	do.	Altered basalt.	150	.65	4.8	8.3	12.3	10	72
4793	do.	do.	Basalt.	159	.83	5.1	7.9	11.0	10	141
4497	Raymond	do.	Micaceous sandstone.	159	2.13	8.2	8.2	4.4	6	39
2123	Takoma	Pierce	Altered diabase.	172	2.40	4.9	10.1	17.7	19	96
4439	Elbe	do.	Augite andesite.	165	1.70	4.0	9.8	18.4	9	26
4469	La Grande	do.	Altered andesite.	168	.36	2.2	18.2	19.2	35	20
4534	Elbe	do.	Basaltic andesite.	165	.11	6.6	6.0	(1)	(1)	27
4575	Olney	do.	Altered andesite.	163	.18	3.7	10.8	17.7	18	33
6619	Electron	do.	Diorite.	168	.36	2.3	17.4	18.5	20	164
4426	Richardson	do.	Altered andesite.	181	.78	2.3	16.0	18.3	24	102
4505	Olney	San Juan	do.	184	.07	4.2	9.5	17.3	19	48
4470	Friday Harbor	do.	Limestone.	172	.17	2.1	14.3	18.0	19	141
4568	Wadron Island	do.	Feldspathic sandstone.	162	.66	2.9	12.9	13.2	8	21
2141	Deception Pass	Skagit	do.	163	.81	2.5	15.9	18.5	13	73
4438	Clear Lake	do.	Altered diabase.	184	.15	2.1	15.9	18.0	20	37
4460	Grassmere	do.	do.	184	.22	3.4	11.9	19.3	20	27
4471	Rockport	do.	Altered andesite.	184	.11	10.6	3.8	16.3	18	26
4782	Berlington	do.	Slate.	172	.21	(1)	(1)	11.3	6	12
4787	do.	do.	Altered basalt.	157	.02	2.9	13.9	18.7	30	11
4474	Cooks	Skamania	Basalt.	175	.98	2.3	17.4	18.2	33	176
8332	Willard	do.	Olivine basalt.	168	.91	7.7	5.2	(1)	(1)	8
2145	Whidbey Island	Snohomish	Sandstone.	172	2.53	(1)	(1)	9.5	7	500+
3188	Everett	do.	Altered peridotite.	172	1.02	5.3	7.6	13.3	10	61
3189	do.	do.	Altered gabbro.	172	.76	5.2	7.7	16.2	10	88
3190	do.	do.	do.	178	.89	3.6	11.0	17.2	13	60
4458	Granite Falls	do.	Altered diorite.	168	.42	2.7	14.6	18.7	17	17
4499	do.	do.	Diorite.	168	.43	3.2	12.7	17.6	17	16
4778	Index	do.	Granodiorite.	168	.23	3.1	12.9	18.3	9	13
4464	Monte Cristo	do.	Altered andesite.	172	.12	2.3	17.7	18.3	12	22
4794	Monroe	do.	do.	165	.74	4.3	9.3	15.0	8	72
4465	Granite Falls	do.	Serpentine.	165	.39	8.0	5.0	(1)	(1)	179

TABLE V.—*Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.*

WASHINGTON—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Commenting value.
4514	Skamokawa.	Wahkiakum	Basalt.	Pounds. 175	Pounds. .41	2.2	17.9	18.4	23	12
4550	Cathlamet.	do.	do.	181	.22	1.9	21.3	17.7	24	13
4552	do.	do.	do.	175	.30	3.1	13.0	17.8	11	10
4472	Tonolow.	Walla Walla	do.	172	.42	3.2	12.5	18.0	6	111
4500	Dixie	do.	do.	181	.39	2.7	14.7	17.2	6	25
1023	Saur Creek	Whatcom	Altered diabase.	168	.53	3.2	12.8	17.4	17	208
1024	Coal Creek	do.	do.	190	.73	4.9	8.2	12.9	4	75
1028	Bellingham	do.	Feldspathic quartzite.	175	.19	2.3	16.0	18.2	23	200
4770	Deming	do.	Feldspathic sandstone.	133	2.81	8.2	4.9	8.3	5	133
4777	Clunkamul.	do.	do.	156	2.03	8.3	4.8	(1)	(1)	97
4781	Wickersham.	do.	do.	162	.93	15.9	2.5	9.2	5	7
4774	do.	do.	Serfelle schist.	168	.47	23.3	1.7	(1)	(1)	7
4775	Kendall.	do.	Marble.	172	.20	4.9	8.2	12.3	7	9
1272	Colfax.	Whitman	Basalt.	181	1.11	2.0	20.0	17.8	22	16
1735	Pullman.	do.	do.	184	.92	2.5	16.3	17.7	10	31
4456	Winona.	do.	do.	181	.15	2.5	16.2	19.0	25	11
4491	Rosalia.	do.	do.	175	.29	2.7	14.7	17.6	26	13
4503	Pullman.	do.	Altered basalt.	181	.15	2.3	17.2	(1)	(1)	32
4529	Palouse.	do.	Basalt.	184	.11	5.2	17.7	18.2	22	3
4494	Stepieo Butte.	do.	Quartzite.	165	.40	2.3	7.7	18.7	9	3
4428	North Yakima	Yakima	Basalt.	181	.34	2.5	16.3	18.0	19	13
4512	do.	do.	do.	181	.08	3.0	13.2	17.5	16	7
4582	(?)	(?)	Basalt.	178	.27	2.2	17.9	(1)	(1)	21
4583	(?)	(?)	do.	172	.35	2.2	18.2	17.7	22	7
4584	(?)	(?)	do.	181	.26	3.6	11.1	16.8	14	120
4585	(?)	(?)	do.	181	.24	2.5	16.0	18.5	25	13
4586	(?)	(?)	do.	175	.07	2.7	14.6	17.7	25	3
4788	(?)	(?)	Granodiorite.	175	.09	3.5	11.6	17.8	11	7
4786	(?)	(?)	Altered andesite	178	.20	3.9	10.3	17.2	21	9
4791	(?)	(?)	Augite andesite.	175	.11	2.0	20.2	19.2	38	13
4792	(?)	(?)	do.	175						

WEST VIRGINIA.

3030	Philippi.	Barbour.	Sandstone.	156	1.41	6.6	6.0	16.1	8	12
3073	Nicholow.	do.	do.	159	.84	4.2	9.4	18.8	9	3
3106	Philippi.	do.	do.	162	3.38	4.8	8.3	6.4	5	68
3108	do.	do.	Limestone.	172	1.34	3.6	11.0	16.8	17	41
2488	Martinsburg.	Berkeley.	do.	168	.26	4.8	8.3	16.7	4	52

2606	do.	do.	168	11	4.1	9.8	15.7	8
2607	do.	do.	168	20	4.2	9.6	16.4	4
2607	do.	do.	172	20	4.2	9.6	16.4	4
3074	do.	do.	168	21	3.5	11.4	16.0	10
5365	Berkeley	Siliceous limestone.	168	33	3.5	11.4	15.8	46
5893	Martinsburg	do.	168	33	2.8	14.3	15.2	31
8154	do.	do.	178	17	4.1	9.8	17.2	61
8153	do.	do.	168	33	4.1	9.8	15.7	50
8504	do.	do.	168	37	5.4	7.4	13.7	93
(9)	do.	do.	178	37	5.4	11.2	17.2	51
8586	Martinsburg	Siliceous dolomite.	178	36	3.6	11.2	13.7	17
7369	Peytona	Dolomite.	178	26	2.5	15.3	17.3	39
3105	Sandston	do.	178	39	3.4	11.8	16.8	70
3102	Gassaway	do.	156	1.99	3.5	11.6	12.7	42
4645	Sutton	Feldspathic sandstone.	156	4.65	3.5	11.6	12.7	10
3107	Wellsburg	do.	168	3.07	17.9	2.2	17.8	5
1777	Huntington	Limestone	168	3.1	12.7	3.1	(1)	13
2417	do.	do.	162	2.32	9.5	4.2	0.0	23
2418	do.	do.	159	3.43	7.4	5.4	14.7	65
2418	do.	do.	162	1.41	4.9	8.2	15.7	30
2485	do.	do.	156	3.18	28.4	1.4	12.2	72
3021	do.	do.	147	2.60	41.7	1.0	(1)	62
3029	do.	do.	165	.99	3.3	12.1	14.2	28
1884	do.	do.	165	1.40	4.4	9.2	15.2	67
1885	do.	do.	165	1.14	4.4	9.2	11.0	8
3034	Big Bend	Calcareous sandstone.	165	1.48	5.4	7.4	(1)	99
3033	(2)	Sandstone	156	3.25	13.5	3.0	11.3	5
3022	Avlon	Cherty limestone.	168	7.1	5.6	7.1	(1)	80
3069	Organ Cave	Limestone	168	26	4.1	9.8	15.8	31
5917	Renick	do.	168	16	3.7	10.7	16.8	45
5918	Frazier	Crystalline limestone.	172	26	3.7	10.8	(1)	38
5919	Snowflake	do.	168	1.03	5.5	7.3	(1)	14
3026	Avlon	do.	159	1.09	2.5	15.7	18.0	10
3427	Ridgely	Sandstone.	168	.32	3.5	11.4	16.8	54
3428	do.	do.	168	.39	3.5	11.4	16.3	9
7417	Green Spring.	Siliceous limestone.	165	.25	2.1	13.0	17.9	63
7418	Lost Creek	Quartzite	153	3.5	11.5	19.5	13.4	68
3027	Clarksburg	Sandstone.	172	5.22	3.8	9.5	4	69
5948	Union District	Argillaceous limestone.	156	.87	3.5	11.4	16.5	85
3000	Ripley (near)	Sandstone.	156	3.54	9.6	4.2	4.5	49
3031	do.	do.	156	3.60	5.0	8.0	6.4	29
3103	Silverton.	do.	156	4.02	6.3	6.4	8.0	36
2489	Engles	Limestone	168	.30	4.5	9.0	11.8	41
2490	Kearneysville	do.	172	.63	4.4	9.6	14.7	68
2579	Millsville	Dolomitic limestone.	175	.74	4.2	9.1	14.3	7
2589	Kearneysville	Limestone	168	.72	4.0	10.2	14.3	29
3025	Middleway	do.	175	.32	2.9	13.8	17.5	35
3032	Summit.	Dolomitic limestone.	168	.19	4.1	9.7	16.8	94
5741	Charlestown	do.	178	.29	3.7	10.9	16.6	28
2634	Millsville	Dolomite.	168	.54	4.9	8.2	16.4	31
2965	St. Albans	Limestone	168	.37	6.6	6.1	15.8	50
2969	Kanawha.	Feldspathic sandstone.	159	3.37	6.6	6.1	15.8	6
3070	Kendalia.	Sandstone.	156	3.94	8.8	4.6	0.0	56

Test not made.

Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

WEST VIRGINIA—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
3072	(1)	Kanawha	Sandstone	Pounds.	Pounds.	11.0	3.6	14.6	4	34
6109	Spring Hill	do.	do.	159	2.52	14.6	2.7	12.1	4	25
3023	Blakeley	do.	Siliceous slate	159	1.96	14.6	4.8	19.7	30	19
3104	Weston	Lewis	Sandstone	162	2.30	4.1	9.8	9.9	7	51
3238	Camden	do.	Limestone	165	1.40	(2)	(2)	16.7	15	32
2972	Chapmansville	Logan	Feldspathic sandstone	168	2.56	6.4	6.3	13.2	5	40
3237	Kitchen	do.	Sandstone	159	2.83	2.6	15.2	8.3	8	52
4760	Farmont	Marion	Argillaceous sandstone	165	2.44	4.5	8.9	12.0	14	39
7833	do.	do.	Ferruginous sandstone	156	2.39	4.8	8.3	5.4	8	44
7493	do.	do.	Argillaceous limestone	(2)	(2)	3.4	11.8	17.5	10	49
7494	do.	do.	Feldspathic limestone	(2)	(2)	7.8	5.1	11.8	5	59
7785	do.	do.	Argillaceous limestone	168	.47	4.3	9.3	16.8	7	26
7834	do.	do.	do.	168	.50	3.9	10.3	17.2	11	24
8854	do.	do.	do.	171	.29	3.4	11.8	16.2	9	22
2967	Union District	Mason	Feldspathic sandstone	153	4.52	8.3	4.8	0.0	5	70
2976	Point Pleasant	do.	do.	150	5.30	(2)	(2)	0.0	6	77
2088	North Fork	McDowell	do.	165	82	3.0	13.5	15.5	8	72
2974	Elkhorn	do.	Ferruginous sandstone	156	2.37	4.3	9.4	14.9	10	149
2997	Berwind	do.	Sandstone	162	2.16	4.2	9.4	16.8	9	98
3066	Gary	do.	Feldspathic sandstone	162	1.61	3.3	12.2	16.0	8	208
4622	Welch	do.	do.	165	3.53	4.2	9.6	15.0	8	61
2905	Bluefield	Mercer	Limestone	165	1.60	4.3	9.2	(2)	(2)	108
2970	do.	do.	do.	168	.51	3.3	12.0	16.8	11	58
7740	Princeton (near)	do.	Argillaceous limestone	168	.19	7.3	5.5	(2)	(2)	75
7735	do.	do.	Feldspathic sandstone	162	1.35	(3)	(3)	13.2	7	45
7764	do.	do.	Calcareous sandstone	168	.38	5.8	6.9	13.4	15	76
8746	do.	do.	do.	165	1.21	3.7	11.1	17.0	11	22
2472	Keyser	Mineral	Limestone	168	.35	4.0	10.0	16.2	7	43
3350	Fatterson Creek Station	do.	do.	168	.22	2.3	17.1	18.8	13	40
3351	do.	do.	do.	165	.19	2.3	17.1	18.8	23	81
767	do.	do.	do.	168	.50	5.6	7.1	(2)	(2)	37
3065	Morgantown	Monongalia	do.	168	1.33	3.6	11.2	17.2	12	21
3071	Randall	do.	do.	168	.46	4.7	8.6	17.1	11	29
5610	Morgantown	do.	Siliceous limestone	168	.23	4.9	8.2	16.1	10	76
5612	Sturgis	do.	Limestone	168	.55	4.4	9.1	16.0	6	32
5613	do.	do.	Argillaceous limestone	168	.74	4.3	9.3	14.2	4	16
5615	do.	do.	Impure limestone	168	.48	4.3	10.5	16.0	10	32
5616	do.	do.	Argillaceous limestone	168	.37	3.8	10.5	16.0	10	30
2513	Opekiska	do.	Feldspathic sandstone	156	3.74	6.9	5.8	14.7	5	36
2514	Morgantown	do.	Ferruginous sandstone	150	2.51	11.2	3.6	15.2	5	11
3024	Smithtown	do.	do.	134	4.04	6.1	6.6	(2)	(2)	46
3033	Daybrooke	do.	do.	153	3.61	(2)	(2)	14.0	9	24

5514	Sturgeson.....	do.....	Calcareous sandstone.....	168	29	2.9	13.8	16.8	40
3001	Great Cacapon.....	Morgan.....	Dolomite.....	172	.91	2.2	12.3	14.8	71
5377	Berkeley Springs.....	do.....	Limestone.....	168	.45	5.1	7.9	12.2	42
9560	Berkeley Springs (near).....	do.....	do.....	168	.51	7.1	5.6	15.8	71
9563	do.....	do.....	do.....	168	.36	6.5	3.6	(²)	62
9559	Sir John Reed (near).....	do.....	Sandstone.....	165	.61	3.0	13.3	18.8	13
9561	Berkeley Springs (near).....	do.....	do.....	162	.94	3.1	7.8	19.0	10
9562	Great Cacapon (near).....	do.....	do.....	162	1.69	8.0	5.0	18.3	23
9564	Berkeley Springs (near).....	do.....	Ferruginous sandstone.....	168	1.99	4.0	10.0	16.3	11
1688	Valley Grove (near).....	Ohio.....	Limestone.....	165	1.78	4.2	9.5	17.2	21
1689	Valley Grove.....	do.....	do.....	165	1.43	4.8	8.4	(²)	24
1670	Elm Grove.....	do.....	do.....	165	1.43	4.8	8.4	(²)	21
1672	Elm Grove (near).....	do.....	do.....	168	.96	4.3	9.2	19.1	7
1677	Wheeling.....	do.....	do.....	168	1.30	3.5	11.6	18.0	15
6137	Paterson.....	do.....	do.....	165	.95	4.2	9.4	15.7	20
1671	Marion.....	do.....	Dolomite.....	165	.95	4.2	9.4	15.7	12
6925	Buckhorn.....	Pocahontas.....	Limestone.....	172	2.86	4.0	10.1	17.4	69
2511	Rowlesburg.....	Preston.....	Dolomitic limestone.....	165	.06	3.6	11.1	16.0	108
2697	Rowlesburg.....	do.....	Limestone.....	165	.34	2.2	18.2	18.0	28
3492	(¹).....	do.....	do.....	168	1.14	8.4	4.8	(²)	47
4796	Red House.....	Putnam.....	Argillaceous limestone.....	168	.16	4.9	8.2	14.2	33
2891	(¹).....	Raleigh.....	Sandstone.....	153	3.90	11.8	3.4	3.5	76
3002	Alpena.....	Randolph.....	Limestone.....	168	.29	3.9	10.2	16.6	3
3057	Kingsville.....	do.....	Sandstone.....	162	.63	(²)	(²)	18.5	10
3065	Cornwallis.....	do.....	Ferruginous sandstone.....	150	3.46	16.3	2.5	11.8	9
8941	Talbot.....	do.....	Feldspathic sandstone.....	159	2.10	(²)	(²)	0.0	2
2966	Grafton.....	Summers.....	Sandstone.....	162	1.28	2.3	17.1	17.8	13
2968	Sand Run.....	Taylor.....	Feldspathic sandstone.....	156	3.45	6.4	6.2	13.7	6
2999	Newlonton.....	Upshur.....	Sandstone.....	153	1.46	7.2	5.5	18.1	7
3028	Adrian.....	do.....	do.....	156	1.80	19.3	2.1	10.1	4
3236	(¹).....	do.....	do.....	156	2.89	14.1	2.8	17.3	3
2975	Webster Springs.....	do.....	Limestone.....	168	.56	3.7	10.7	16.9	30
3064	Uniontown.....	Webster.....	do.....	168	.41	(²)	(²)	16.5	94
3075	do.....	do.....	Sandstone.....	150	2.85	28.2	1.4	16.5	3
7830	Williamson.....	do.....	do.....	156	2.72	8.3	3.3	3.3	30
4871	Palestine.....	Wingo.....	Feldspathic sandstone.....	162	2.47	5.3	7.5	7.0	41
4872	do.....	Wirt.....	do.....	156	2.83	8.5	4.7	7.0	45
2968	Parlarsburg.....	do.....	do.....	156	2.89	16.3	2.5	7.7	14
8447	Engle.....	do.....	do.....	156	4.32	7.7	2.5	7.7	16
8876	(¹).....	do.....	do.....	156	3.32	(²)	(²)	0.0	6
2971	Maben.....	do.....	Argillaceous limestone.....	162	.24	6.8	5.9	12.6	5
2971	Wyoming.....	do.....	Sandstone.....	168	.61	2.5	16.3	14.5	23
2973	Bakers Ridge district.....	do.....	Feldspathic sandstone.....	162	1.53	3.2	12.7	18.9	10
								17.0	500+

WISCONSIN.

6452	Greenleaf.....	Brown.....	Dolomite.....	172	2.30	3.0	13.3	14.8	58
6504	Brillon.....	Calumet.....	do.....	165	1.35	7.5	5.3	12.2	61
6161	Columbus.....	Columbia.....	Argillaceous dolomite.....	165	2.75	5.7	7.0	12.7	29
5788	Bridgeport.....	Crawford.....	Siliceous dolomite.....	162	3.10	8.9	4.5	9.8	42

² Test not made.¹ Exact locality not known.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

WISCONSIN—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Commenting value.
				Pounds.	Pounds.					
6209	Soldiers Grove.....	Crawford.	Dolomite.....	162	2.96	8.4	4.8	11.3	4	24
6216	Prairie du Chien.....	do.	do.	165	2.65	7.0	5.7	5.8	4	16
6223	Bridgeport.....	do.	do.	175	.65	(1)	(1)	12.7	8	20
746	Madison.....	Dane.	Rhyolite.....	165	.09	2.4	17.0	(1)	(1)	(1)
1009	do.	do.	Dolomite.....	165	.20	9.0	4.4	14.0	7	174
5362	(2)	do.	Argillaceous limestone.	168	2.30	4.3	9.4	14.7	8	20
6062	(2)	do.	Dolomite.....	175	1.21	8.9	4.5	14.0	10	34
6202	Hamilton.....	do.	do.	162	1.67	3.6	11.1	14.0	(1)	19
6203	do.	do.	Siliceous dolomite.....	172	1.57	6.1	6.6	11.3	6	19
6228	Middletown.....	do.	Crystalline dolomite.....	172	1.90	5.1	7.9	13.7	10	14
6438	Madison.....	do.	Argillaceous dolomite.....	162	2.09	10.8	3.7	12.5	4	94
1397	Portland.....	Dodge.	Quartzite.....	168	.14	2.8	14.2	19.0	19	5
5790	Richwood.....	do.	Argillaceous dolomite.....	172	1.33	4.4	9.1	16.1	11	34
6500	Hubbard.....	do.	Dolomite.....	172	1.10	4.5	9.0	14.2	12	53
5046	Sturgeon.....	Door.	do.	178	.26	4.5	10.6	12.8	6	53
6214	Kewaunee.....	do.	Dolomitic marble.....	178	.22	3.8	2.3	(1)	(1)	89
5795	Commonwealth.....	Florence.	Ferruginous slate.....	168	3.41	17.1	7.5	13.7	8	35
5523	Poebles.....	Fon du Lac.	Dolomite.....	178	.51	5.4	11.9	14.4	7	18
6203	Marblehead.....	do.	do.	175	.51	3.4	8.7	15.2	10	52
6479	do.	do.	do.	175	.36	4.6	10.8	13.8	7	27
6752	do.	do.	do.	178	.30	3.7	7.6	13.4	6	49
6807	Hamilton.....	do.	do.	175	1.01	5.2	3.1	12.3	4	16
6210	Benton.....	Grant.	do.	168	2.16	12.9	4.2	12.3	4	39
6230	Cassville.....	do.	do.	168	1.43	9.6	4.2	12.3	5	18
6222	Hazel Green.....	do.	Siliceous dolomite.....	165	1.88	7.1	15.2	14.8	5	21
6212	Lancaster.....	do.	Limestone.....	162	1.67	4.1	9.7	15.0	5	15
6208	Plotteville.....	do.	Dolomite.....	172	1.57	7.4	5.4	15.0	(1)	18
6215	Monroe.....	Greene.	Argillaceous dolomite.....	172	1.68	22.5	1.8	(1)	(1)	41
6221	Broadhead.....	do.	do.	162	4.97	8.8	4.5	9.3	3	33
6225	Martintown.....	do.	Siliceous dolomite.....	162	3.33	11.4	3.5	16.2	5	27
6227	Broadhead.....	do.	Dolomite.....	162	4.72	11.1	3.6	14.1	4	8
747	Uiley.....	Greene Lake.	do.	172	.87	4.1	9.8	(1)	(1)	15
667	Berlin.....	do.	Rhyolite.....	165	.05	1.8	22.5	(1)	(1)	10
668	do.	do.	do.	165	.03	4.0	10.0	(1)	(1)	35
695	Uiley.....	do.	do.	165	.04	5.0	8.0	(1)	(1)	17
696	do.	do.	do.	165	.06	3.6	7.2	(1)	(1)	9
1427	do.	do.	do.	165	.10	1.9	20.6	19.0	23	5
1434	Uiley.....	do.	do.	162	.05	2.5	16.2	10.7	4	21
6207	Blue Mound.....	Iowa.	Argillaceous dolomite.....	162	4.75	11.3	3.6	10.7	4	7
6213	do.	do.	Limestone.....	168	.59	5.2	13.7	14.5	11	16
6211	Mineral Point.....	do.	do.	165	2.96	3.9	10.3			

Blue Mount...	do.	Chert.	3.16	12.3	(1)	5
Jefferson	do.	Dolomite.	1.50	12.8	(1)	5
Port Atkinson.	do.	Chert.	172	19.7	26	17
La Crosse	do.	Dolomite.	162	15.0	(1)	14
do.	do.	do.	172	14.8	(1)	34
do.	do.	do.	175	17.3	(1)	36
do.	do.	do.	165	18.8	(1)	26
do.	do.	Limestone	172	17.3	(1)	24
do.	do.	Biotite granite	165	19	17	17
do.	do.	Siliceous dolomite.	168	14.5	5.5	145
Darlington.	do.	Dolomite.	175	11.1	7.2	145
Quarry Post Office.	do.	do.	175	13.7	7.7	13
Cooperstown.	do.	do.	165	18.8	(1)	13
Amberg	do.	Biotite granite	165	16.5	11	13
Marquette.	do.	Granite	165	18.9	13	13
Monroe.	do.	Dolomite.	175	7.0	16.8	26
11124	do.	do.	159	10.2	8.2	26
North Milwaukee	do.	do.	174	8.5	6	27
Graville.	do.	do.	165	12.2	13.4	15
1284	do.	do.	162	4.7	8	22
North Milwaukee	do.	do.	165	7.4	13.5	27
Wanawata.	do.	do.	175	9.7	(1)	(1)
1283	do.	do.	175	15.6	9	18
1282	do.	do.	175	7.5	9	9
1281	do.	do.	175	14.2	8	32
1280	do.	do.	165	11.1	5	32
Kankann	do.	do.	165	6.3	19	17
Belgium	do.	do.	175	15.2	71	71
do.	do.	do.	184	18.8	22	43
Altered basalt.	do.	do.	184	18.7	13	6
Altered diabase	do.	do.	159	11.0	12	27
Sandstone.	do.	do.	156	7.7	18.5	27
do.	do.	Dolomite.	162	5.2	7	6
do.	do.	do.	162	7.6	13.7	12
do.	do.	do.	165	7.2	(1)	(1)
do.	do.	do.	162	5.6	6	34
do.	do.	do.	165	7.1	51	51
do.	do.	do.	165	5.8	47	47
do.	do.	do.	165	6.7	8	12
do.	do.	do.	168	14.9	7	7
do.	do.	Dolomite limestone.	175	5.8	72	72
do.	do.	do.	165	6.8	44	44
do.	do.	do.	172	4.8	4	48
do.	do.	do.	165	5.4	5	48
do.	do.	Argillaceous dolomite.	165	12.5	14	14
do.	do.	do.	159	4.7	7	17
do.	do.	do.	172	15.3	6	17
do.	do.	do.	165	14.5	8	17
do.	do.	Siliceous dolomite.	168	9.1	5	16
do.	do.	Dolomite.	168	2.3	23	23
do.	do.	do.	168	17.3	6	16
do.	do.	do.	168	8.1	42	42
do.	do.	Argillaceous dolomite	165	7.1	12.0	7
do.	do.	Quartzite	153	11.9	18.0	4
do.	do.	Sandstone.	153	3.7	15.7	7
do.	do.	do.	153	10.7	4	4
do.	do.	do.	153	3.4	11.7	9
do.	do.	do.	156	3.7	18.4	4
do.	do.	do.	156	8.2	2.7	5
do.	do.	Dolomite marble	172	8.3	12.7	39
Shelbygan.	do.	Dolomite.	172	4.8	3.8	32
do.	do.	Dolomite marble.	165	10.4	13.3	32
Washington.	do.	Dolomite.	175	5.0	7	5
do.	do.	do.	162	8.4	8.2	32
do.	do.	do.	162	3.39	6.2	4
do.	do.	do.	162	6.5	12.0	4
do.	do.	do.	162	6.5	16.3	4

4 Test not made.

² Exact locality not known.

TABLE V.—*Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.*

WISCONSIN—Continued.

Serial No.	Town or city.	County.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent cubic of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
6159	Whitewater.....	Walworth.....	Dolomite.....	Pounds. 168	Pounds. 2.27	6.4	6.3	13.3	7	27
3509	Lannon.....	Waukesha.....	do.....	175	.91	3.4	11.7	15.9	13	24
3800	do.....	do.....	do.....	172	1.12	3.2	11.7	16.1	13	26
6170	Pewaukee.....	do.....	do.....	172	1.84	4.1	9.9	15.3	13	14
6171	Lannon.....	do.....	do.....	168	2.03	6.7	6.0	13.3	9	36
6172	Waukesha.....	do.....	do.....	172	1.56	3.6	11.0	15.0	7	20
6173	Lannon.....	do.....	do.....	175	.88	3.5	11.6	15.6	10	22
8656	do.....	do.....	do.....	175	.85	3.6	11.1	15.4	10	25
1408	Waupaca.....	Waupaca.....	Granite.....	162	1.96	1.4	27.8	18.9	29	6
3011	Waupaca (2 miles north of).....	do.....	Biotite granite.....	168	.15	5.3	7.5	19.0	9	26
8018	Waupaca.....	do.....	do.....	168	.25	4.1	9.7	18.7	5	20
1374	Lohrville.....	Waushara.....	Granite.....	168	.26	2.0	20.0	19.0	(1)	6
1340	do.....	do.....	do.....	(1)	(1)	2.4	18.4	(1)	(1)	(1)
1435	Marion.....	do.....	do.....	165	.30	1.5	18.9	18.9	23	7
1432	Lohrville.....	do.....	do.....	165	.19	2.7	16.6	18.4	21	9
1431	Red Granite.....	do.....	do.....	165	.14	1.1	27.0	18.8	25	3
1398	Glen Rock.....	do.....	do.....	165	.42	1.5	37.4	18.2	24	6
5586	Red granite.....	do.....	do.....	(1)	(1)	(1)	(1)	19.0	14	(1)
6237	Oshkosh.....	Winnebago.....	Sandstone.....	175	.65	3.8	10.6	13.5	8	37
6236	Appleton.....	do.....	Dolomite.....	175	.53	3.4	11.8	16.5	10	45
6246	Oniro.....	do.....	do.....	172	1.65	5.6	7.1	16.3	7	32
6487	Poyan.....	do.....	do.....	175	.62	3.4	11.9	14.7	11	23
6573	Neenah.....	do.....	do.....	168	2.68	4.1	9.8	14.3	9	31
8920	Rudolph.....	do.....	Sandstone.....	156	1.10	3.4	11.8	18.7	5	2
5796	(2).....	Wood.....	Feruginous sandstone.....	140	4.51	25.2	1.6	0.0	3	20
6181	(2).....	do.....	Argillaceous dolomite.....	168	1.86	10.7	3.7	11.7	7	9
6180	(2).....	do.....	do.....	168	2.96	7.3	5.5	15.0	7	18
6179	(2).....	do.....	do.....	153	6.90	7.3	5.5	12.7	5	19
6177	(2).....	do.....	do.....	165	2.82	6.1	6.6	12.7	5	26
6176	(2).....	do.....	do.....	165	3.59	7.6	5.3	4.0	3	13
6175	(2).....	do.....	do.....	168	2.67	7.4	5.4	13.3	12	32
6185	(2).....	do.....	do.....	168	2.99	5.4	5.4	13.2	6	13
6186	(2).....	do.....	Siliceous dolomite.....	168	3.01	8.1	4.9	15.0	7	23
6183	(2).....	do.....	do.....	162	3.68	9.9	4.1	4.5	2	22
6178	(2).....	do.....	Dolomite.....	162	2.51	8.0	5.0	12.0	3	27
6174	(2).....	do.....	do.....	172	1.35	5.6	7.1	15.5	11	25
6182	(2).....	do.....	do.....	159	3.13	11.3	3.5	11.7	4	32
6184	(2).....	do.....	do.....	175	.86	9.2	4.3	13.7	4	33
6231	(2).....	do.....	do.....	162	3.44	6.1	6.5	14.5	4	20
5791	(2).....	do.....	do.....	175	.83	3.6	11.0	14.0	10	24
6232	(2).....	do.....	do.....	165	.34	6.5	6.2	16.0	9	38

WYOMING.

6233	(2)	Argillaceous limestone.....	165	.78	6.2	6.5	(1)	(1)	6	28
7624	(2)	Dolomite.....	168	.79	7.3	5.3	14.0			36

CUBA.

6452	Sheridan.....	Ferruginous sandstone.....	150	7.55	14.4	2.8	5.0	9	3
2209	Fort McKenzie.....	Calcareous sandstone.....	168	1.49	2.7	15.0	15.3	10	97
2380	do.....	do.....	165	1.86	4.2	9.6	15.3	6	251

PORTO RICO.

795	Bayamon.....	Limestone.....	165	0.60	5.3	7.5	(1)	(1)	7	49
798	Carolina.....	do.....	168	.49	5.2	7.7	15.3			27
799	Rio Piedras.....	do.....	162	.83	6.3	6.3	13.3	(1)	20	91
803	do.....	Basalt tuff.....	168	1.10	3.5	11.3	(1)	(1)		108
797	Arecibo.....	Limestone.....	156	.87	7.4	5.4	(1)	(1)		48
801	Uftado.....	Diorite.....	168	.39	4.0	10.0	(1)	(1)		39
802	Manati.....	Limestone.....	165	.96	5.2	7.7	(1)	(1)		64
793	Rio Piedras.....	do.....	168	.20	5.8	6.9	14.1		7	30
794	Cayey.....	do.....	168	.08	5.1	7.9	14.6	(1)	10	61
796	Juncos.....	Diorite.....	175	.09	2.8	14.5	(1)	(1)	6	1
800	Comerio.....	Limestone.....	168	.11	6.0	6.7	10.0			135
804	Gurabo.....	Basalt breccia.....	187	.25	3.5	11.5	17.2	21		73

CANADA.

6660	Vernon.....	British Columbia ³	168	0.36	(1)	(1)	12.4	5		125
6728	do.....	do.....	165	.55	4.4	9.1	18.4	8		85
6729	do.....	do.....	162	1.45	3.5	11.4	18.3	14		41
7661	Fenderky.....	Basalt breccia.....	153	4.87	3.5	6.8	18.3	8		500+
2213	Portlock Harbor.....	Slate.....	172	.57	3.0	13.2	16.9	10		19
7079	do.....	do.....	172	.07	2.8	13.2	16.9	10		12
2510	do.....	do.....	165	.22	1.9	20.6	(1)	(1)		14
2510	do.....	Feldspathic quartzite.....	178	.86	(1)	(1)	17.3	10		141
2319	do.....	Altered diabase.....	181	.18	2.5	15.8	18.0	9		26
6136	Humming Point.....	do.....	187	.17	2.2	18.2	18.5	18		66
6360	Bruce Mines.....	do.....	184	.72	2.1	19.4	18.0	31		67
6518	do.....	do.....	187	.09	2.3	17.4	18.6	17		23
7069	do.....	Altered quartz diabase.....	187	.09	2.3	17.4	18.6	17		23

¹ Test not made.² Exact locality not known.³ Province.

TABLE V.—Results of physical tests of road-building rock from the United States, Canada, Porto Rico, and Cuba, complete to January 1, 1916—Contd.

CANADA—Continued.

Serial No.	Town or city.	Province.	Name of material.	Weight per cubic foot.	Absorption per cubic foot.	Per cent of wear.	French coefficient of wear.	Hardness.	Toughness.	Cementing value.
7387	Bruce Mines	Ontario	Altered diabase.	Pounds. 178	Pounds. 0.70	2.6	15.4	17.3	15	109
7388	do.	do.	do.	184	.75	2.5	16.3	18.7	20	155
7389	Hanlock.	do.	do.	190	.08	2.2	18.2	18.7	16	155
7390	Cape Breton	do.	Open hearth slag.	190	1.68	3.1	12.9	(1)	(1)	500+
5367	Pole Island.	do.	Altered gabbro.	175	.10	2.3	17.6	17.2	9	47
6889	Desbarats.	do.	do.	175	.10	5.1	16.1	16.1	6	35
7188	do.	do.	do.	184	.44	3.7	10.7	17.8	16	104
5831	Bruce Mines	do.	Altered augite andesite.	181	.34	2.1	18.7	17.9	22	29
7256	Belmont Township.	do.	Altered Andesite.	187	.28	(1)	(1)	18.5	9	39
5933	Dundas.	do.	Dolomite.	175	1.17	2.9	13.7	18.8	14	27
7268	Fergus.	do.	do.	175	.40	(1)	(1)	13.8	5	48
7269	Owen Island.	do.	Argillaceous dolomite.	165	2.25	(1)	(1)	14.8	3	39
7270	do.	do.	Siliceous dolomite.	165	1.25	(1)	(1)	18.3	3	62
7671	(?)	do.	Dolomite.	175	.57	5.3	7.5	16.6	14	41
7672	(?)	do.	do.	172	.83	5.5	7.3	14.1	6	17
8163	Dundas.	do.	do.	175	.35	3.9	10.0	15.8	13	36
8164	do.	do.	do.	175	.57	3.7	10.9	16.2	9	46
8165	do.	do.	do.	175	.24	3.6	11.1	16.0	11	61
8166	do.	do.	do.	168	.66	3.8	10.5	13.5	10	19
8167	do.	do.	do.	172	.52	3.8	10.5	15.8	6	26
7372	do.	do.	Argillaceous dolomite.	168	1.95	3.0	13.4	12.8	8	50
6168	Copley Island.	do.	Feldspathic sandstone.	168	.30	2.5	16.3	18.2	34	33
7251	Modoc Township.	do.	Altered diorite porphyry.	190	.17	3.0	13.2	17.8	13	79
7252	Elzvir Township.	do.	Quartz diorite.	190	.10	(1)	13.6	18.3	16	34
7253	Belmont Township.	do.	Hornblende epidote schist.	187	.19	2.9	(1)	17.9	13	47
7254	do.	do.	Amphibolite.	187	.31	(1)	(1)	18.3	24	87
7257	do.	do.	do.	193	.11	(1)	(1)	18.6	17	57
7257	Elzvir Township.	do.	Hornblende gneiss.	190	.19	(1)	(1)	17.6	9	48
7255	do.	do.	Argillaceous limestone.	165	1.30	(1)	(1)	10.3	4	40
7266	Collingwood.	do.	Limestone.	165	.93	(1)	(1)	18.8	12	119
7263	(?)	do.	Siliceous limestone.	175	.29	3.5	11.3	19.0	11	23
8873	Hagersville.	do.	Siliceous limestone.	175	.31	3.6	11.2	17.7	14	22
5725	Sherbrooke.	Quebec.	Siliceous dolomite.	187	.61	(1)	(1)	15.8	10	19
7303	Dundas.	Ontario.	Dolomite.	172	.81	(1)	(1)	14.3	10	35
7305	do.	do.	do.	175	.81	4.2	9.6	15.3	7	36
7333	Galt.	do.	do.	172	1.72	.93	11.2	15.4	11	33
7367	Dundas.	do.	do.	172	.65	3.8	10.4	15.9	13	68
7368	do.	do.	do.	172	.65	3.8	10.4	15.9	13	68

² Exact locality not known.

¹ Test not made.

